STATE OF UTAH  DEPARTMENT OF NATURAL RESOURCES  DIVISION OF OIL, GAS AND MINING								AN	IENDED REP	ORT				
APPLICATION FOR PERMIT TO DRILL									1. WELL NAM	IE and NUMBE Myrin Li	R vestock 2-2	0B3		
2. TYPE OF V		RILL NEW WELL 🕡	REENTER P&	A WELL	DEEPEN	WELL (				3. FIELD OR		TAMONT		
4. TYPE OF V		Oil W		ed Methane \						5. UNIT or C	OMMUNITIZAT	ION AGREE	MENT NA	ME
6. NAME OF	OPERATOR	Oli W	EP ENERGY E&P							7. OPERATO		997-5038		
8. ADDRESS	OF OPERATOR	40								9. OPERATO	R E-MAIL			
	LEASE NUMBER	?	01 Louisiana, Ho		AL OWNERS	SHIP			_	12. SURFACE	OWNERSHIP	ez@epenerç		
	NDIAN, OR STAT	FEE		FEDERAL	. DINE	DIAN 🔵	STATE (	) FEE	~	FEDERAL	NDIAN	STA		FEE 📵
13. NAME OI	F SURFACE OWI	NER (if box 12 = 'fe	ee') Myrin Livesto	ock 2-20B3						14. SURFAC	E OWNER PHO 43	54543494	12 = 'fee')	
15. ADDRES	S OF SURFACE	OWNER (if box 12 H	<b>= 'fee')</b> C 65 Box 30, Alta	amont, UT 8	4001					16. SURFAC	E OWNER E-N	IAIL (if box	12 = 'fee')	
17. INDIAN A (if box 12 =	ALLOTTEE OR TE 'INDIAN')	RIBE NAME			FORMATIO	IINGLE PRO NS Commingling			_	19. SLANT VERTICAL	DIRECT	ONAL 📵	HORIZON	ITAL 🔵
20. LOCATI	ON OF WELL		FC	OTAGES		QTR-0	QTR	SEC	TION	TOWNS	SHIP	RANGE	N	IERIDIAN
LOCATION	AT SURFACE		2334 FS	SL 1926 FW	/L	NES\	W	2	20	2,0 6		3.0 W		U
Top of Upp	ermost Produci	ng Zone	1855 FS	SL 1820 FW	/L	NES	W	2	:0	2.0 \$		3.0 W		U
At Total De	epth		1855 FS	FSL 1820 FWL N			NESW 20 2.0		2.0 \$	5	3.0 W		U	
21. COUNTY		CHESNE		22. DISTAN	ICE TO NEA	REST LEAS	E LINE (F	eel	RI	23. NUMBER	OF ACRES IN	DRILLING U	JNIT	
				25. DISTAN (Applied F	ICE TO NEA	REST WELL or Complete 2000	IN SAME	POOL		26. PROPOS		6 TVD: 1	3300	
27. ELEVATI	ON - GROUND L	<b>EVEL</b> 5905		<b>28. BOND NUMBER</b> 400JU0708					29. SOURCE OF DRILLING WATER / WATER RIGHTS APPROVAL NUMBER IF APPLICABLE Duchesne City					
0.1					-9		nd Cement Information						VI	
String	Hole Size	Casing Size	an.	1th 300	Weight 54.5		de & Thr J-55 ST&			Mud Wt.	Class G	Sacks 1000	Yield 1.15	Weight 15.8
SURF	12.25	9.625		200	40.0		N-80 LT8			9.7	Type V	693	2.37	12.0
											Class G	803	1.31	14.3
I1	8.75		0 - 10	)316	29.0	НС	P-110 L	T&C	1	1.5	Class G	314	1.91	12.5
L1	6.125	5	10116 -	13316	18.0	HC	P-110 L	T&C	1	3.8	Class G Class G	190	1.64	13.0
ATTACHMENTS														
VERIFY THE FOLLOWING ARE ATTACHED IN ACCORDANCE WITH THE UTAH OIL AND GAS CONSERVATION GENERAL RULES														
<b>WELL PLAT OR MAP PREPARED BY LICENSED SURVEYOR OR ENGINEER COMPLETE DRILLING PLAN</b>														
AFFIDAVIT OF STATUS OF SURFACE OWNER AGREEMENT (IF FEE SURFACE)  FORM 5. IF OPERATOR IS OTHER THAN THE LEASE OWNER														
DIRECTIONAL SURVEY PLAN (IF DIRECTIONALLY OR HORIZONTALLY DRILLED)							TOPOGRAPHICAL MAP							
NAME Maria	a S. Gomez		TITLE Principal	Regulatory	Analyst				PHONE 7	13 997-503	3			
SIGNATURE DATE 09/22/2014						EMAIL maria.gomez@epenergy.com								
API NUMBE	R ASSIGNED 430	13531560000		Α	PPROVAL									

#### Myrin Livestock 2-20B3 Sec. 20, T2S, R3W DUCHESNE COUNTY, UT

#### EP ENERGY E&P COMPANY, L.P.

#### DRILLING PROGRAM

#### 1. Estimated Tops of Important Geologic Markers

<u>Formation</u>	<u>Depth</u>
Green River (GRRV) Green River (GRTN1) Mahogany Bench L. Green River Wasatch T.D. (Permit)	5,232' TVD 6,155' TVD 7,152' TVD 8,482' TVD 10,232' TVD 13,300' TVD / +/- 13,316' MD
,	

#### 2. Estimated Depths of Anticipated Water, Oil, Gas or Mineral Formations:

Substance	<u>Formation</u>	<u>Depth</u>
	Green River (GRV) Green River (GRTN1) Man ogany Bench	5,232' MD/TVD 6,157' MD / 6,155' TVD 7,158' MD / 7,152' TVD
Oil Oil	U. Green River Wasatch	8,492' MD / 8,482' TVD 10,248' MD / 10,232' TVD

#### Presure Control Equipment: (Schematic Attached)

A Diverter Stack on structural pipe from surface to 800' MD/TVD. A 4.5" by 13-3/8" Diverter Stack w/ rotating head from 800' MD/TVD to 5,300' MD/TVD on Conductor. A 10M BOP stack w/ rotating head, spacer spool, 5M annular, flex rams, blind rams, single w/ flex rams from 5,300' MD/TVD to 10,316' MD/ 10,300' TVD. A 10M BOP stack w/ rotating head, spacer spool, 5M annular, flex rams, blind rams, single w/ flex rams from 10,316' MD/ 10,300' TVD to TD (13,316' MD/ 13,300' TVD).

The BOPE and related equipment will meet the requirements of the 5M and 10M system.

#### **OPERATORS MINIMUM SPECIFICATIONS FOR BOPE:**

The surface casing will be equipped with a flanged casing head of 5M psi working pressure. An 11" 5M x 11" 10M spool, 11" x 10M psi BOP and 5M psi annular will be nippled up on the surface casing and tested to 250 psi low test / 3,000 psi high test for 10 minutes each prior to drilling out. The surface casing

will be tested to 1,000 psi. for 30 mins. Intermediate casing will be tested to the greater of 1,500 psi or 0.22 psi/ft. The choke manifold equipment, upper Kelly cock and floor safety valves will be tested to 5M psi. The annular preventer will be tested to 250 psi low test / 4,000 psi high test. The 10M BOP will be installed with rotating head, spacer spool, 5M annular, flex rams, blind rams, single w/ flex rams from surface shoe to TD. The BOPE will be hydraulically operated.

In addition, the BOP equipment will be tested after running intermediate casing, after any repairs to the equipment and at least once every 30 days. Pipe and blind rams will be activated on each trip, annular preventer will be activated weekly and weekly BOP drills will be held with each crew.

#### Statement on Accumulator System and Location of Hydraulic Controls:

Precision 404 is expected to be used to drill the proposed well. Operations will commence after approval of this application. Manual and/or hydraulic controls roved will be in compliance with 5M and 10M psi systems.

#### Auxiliary Equipment:

- Pason Gas Monitoring 800' TD A)
- Mud logger with gas monitor 5,300' to TD B)
- C) Choke manifold with one manual and or ydiaulic operated choke
- Full opening floor valve with drill pipe thread D)
- E) Upper and lower Kelly cock
- F) Shaker, de-sander and centrifuge

#### 4. Proposed Casing & Cementing Program:

Please refer to the attached Wellbore Diagram.

All pasting will meet or exceed the following design safety factors:

- Burst = 1.00
- Collapse = 1.125
- Tension = 1.2 (including 100k# overpull)

Cement design calculations for intermediate and production hole will be based on minimum 10% excess over gauge hole volumes. Actual volumes pumped will be a minimum of 10% excess over caliper volume to designed tops of cement for any section logged. A minimum of 50% excess over gauge volume will be pumped on surface casing.

#### 5. **Drilling Fluids Program:**

Proposed Mud Program:

Interval	Туре	Mud Weight
Surface	WBM	8.8 - 9.7
Intermediate	WBM	9.7 – 11.5
Production	WBM	12.0 – 13.8

Anticipated mud weights are based on actual offset well bottom-hole pressure data. Mud weights utilized may be somewhat higher to allow for trip margin and to provide hole stability for running logs and casing.

Visual mud monitoring equipment will be utilized.

#### 6. **Evaluation Program**:

Logs:

Mud Log: 5,300' MD/TVD - TD

Open Hole Logs: Gamma Ray, Neutron-Density, Resistivity, Sonic, from surface

casing shoe to TD.

#### 7. Abnormal Conditions:

Maximum anticipated bottomhole pressure calculated at 13,300' TVD equals approximately 9,544 psi. This is calculated based on a 0.7176 psi/ft gradient (13.8 ppg mud density at TD).

Maximum anticipated surface pressure equals approximately 6,618 psi (bottomhole pressure minus the pressure of a partially evacuated hole calculated at 0.22 psi/ft).

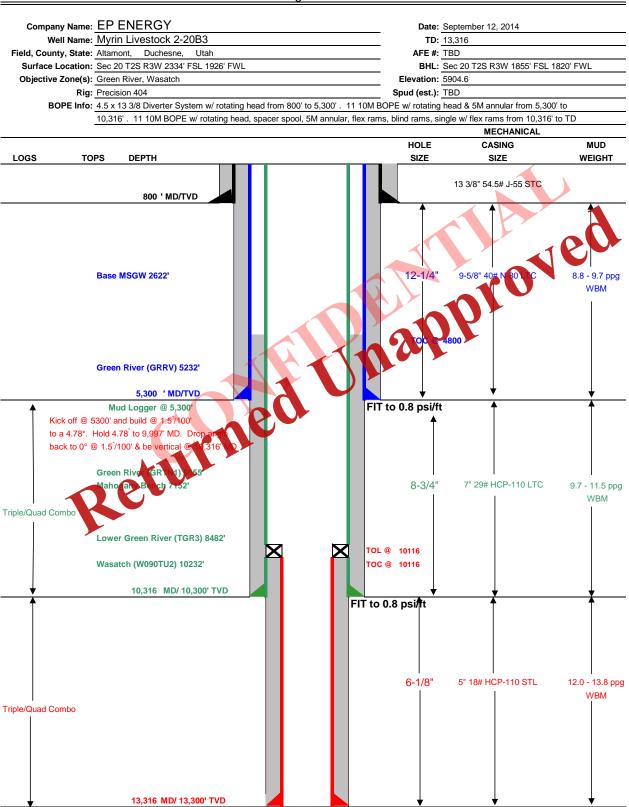
Maximum anticipated surface pressure based on frac gradient at 7" casing shoe is 0.8 psi/ft at 10,300' TVD = 8,240 psi

BOPE and casing design will be based on the lesser of the two MASPs which is 6,618 psi.

8. OPERATOR REQUESTS THAT THE PROPOSED WELL BE PLACED ON ONFIDENTIAL STATUS.



#### **Drilling Schematic**



#### DRILLING PROGRAM

CASING PROGRAM	SIZE	INTE	RVAL	WT.	GR.	CPLG.	BURST	COLLAPSE	TENSION
CONDUCTOR	13 3/8"	0	800	54.5	J-55	STC	2,740	1,130	514
SURFACE	9-5/8"	0	5300	40.00	N-80	LTC	5,750	3,090	737
INTERMEDIATE	7"	0	10316	29.00	HCP-110	LTC	11,220	9,750	797
PRODUCTION LINER	5"	10116	13316	18.00	HCP-110	STL	13,940	15,450	495

CEMENT PROGRA	AM	FT. OF FILL	DESCRIPTION	SACKS	EXCESS	WEIGHT	YIELD
CONDUCTOR		800	Class G + 3% CACL2	1000	100%	15.8 ppg	1.15
SURFACE	Lead	4,800	EXTENDACEM SYSTEM: Type V Cement + 5 lbm/sk Silicalite Compacted + 0.25 lbm/sk Kwik Seal + 0.125 lbm/sk Poly- E-Flake + 8% Bentonite + 0.3% D-AIR 5000	781	75%	11.0 ppg	3.18
SUNFACE	Tail	500	HALCEM SYSTEM: Class G Cement + 3 lbm/sk Silicalite Compacted + 1% Salt + 0.3% Econolite + 0.25 lbm/sk Poly-E-Flake + 0.25 lbm/sk Kwik Seal + 0.3% D-AIR 5000	194	50%	14.3 ppg	flat
INTERMEDIATE	Lead	3,166	EXTENDACEM SYSTEM: Class G Cement + 6% Bentonite + 0.2% Econolite + 0.3% Versaset + 0.75% HR-5 + 0,3% Super CBL + 0.2% Halad-322 + 0.125 lb/sk Poly-E-Flace	a S	6	12.5 ppg	1.91
	Tail	2,350	EXPANDACEM S. TEM: Class C. Cement + 1/6 Benton in + 0.25 Poly-E- Flake + 0.12 halad-413 holsk Silicalite Compacted + 1/15% SA-1015 + 0.3%  AHR-5	286	30%	13.0 ppg	1.64
PRODUCTION LINER		aturi	EALE/NDACEM SYSTEM: Class G C. ment + 0.2% Super CBL + 0.55% SCR- 100 + 0.3% Halad-413 + 0.125 lbm/sk Poly-E-Flake + 3 lbm/sk Silicalite Compacted + 20% SS-200 + 0.10% SA- 1015	190	25%	14.20	1.47

FLOAT EQUIPMENT & CENTRALIZERS					
CONDUCTOR	PDC drillable guide shoe, 1 joint, PDC drillable float collar. Thread lock all float equipment. Install bow				
CONDUCTOR	spring centralizers on the bottom 3 joints of casing.				
SURFACE	PDC drillable guide shoe, 1 joint casing, PDC drillable float collar. Thread lock all float equipment. Install				
SURFACE	bow spring centralizers on the bottom 3 joints of casing & every 3rd joint thereafter.				
INTERMEDIATE	PDC drillable 10M,P-110 float shoe, 1 joint, PDC drillable 10M, P-110 float collar. Thread lock all float				
INTERMEDIATE	equipment. Maker joint at +/- 8,450'.				
LINER	Float shoe, 1 joint, float collar, 1 joint, 1 landing collar. Thread lock all FE. Maker joints every 1000'.				

PROJECT ENGINEER(S):	Brad MacAfee	713-997-6383	
MANAGER:	Bob Dodd		
		•	

## EP ENERGY E&P COMPANY, L.P. MYRIN LIVESTOCK 2-20B3 LOCATION SECTION 20, T2S, R3W, U.S.B.&M.

PROCEED IN AN EASTERLY THENCE SOUTHERLY THENCE SOUTHEASTERLY DIRECTION FROM ALTAMONT, UTAH ALONG HIGHWAY 87 APPROXIMATELY 6.0 MILES TO THE JUNCTION OF HIGHWAY 87 AND AN EXISTING ROAD TO THE SOUTHWEST; TURN RIGHT AND PROCEED APPROXIMATELY 0.3 MILES TO THE BEGINNING OF THE PROPOSED ACCESS FOR THE MYRIN LIVESTOCK 2-20B3 LOCATION TO THE SOUTHWEST; FOLLOW THE PROPOSED ROAD STAKES IN A SOUTHWESTERLY THENCE NORTHWESTERLY THENCE WESTERLY DIRECTION APPROXIMATELY 5,433' (1.0 MILES) TO THE PROPOSED MYRIN LIVESTOCK 2-20B3 LOCATION.

TOTAL DISTANCE FROM ALTAMONT, UTAH TO THE PROPOSED MYRIN LIVESTOCK 2-20B3 LOCATION IS APPROXIMATAL N.F. 3 MILES.

## Location Photos

#### **Center Stake**

**Looking Westerly** 

Date Photographed:	08-07-14
Photographed By :	G.D.O.









 DRAWN BY:
 A.P.C.
 REVISED:

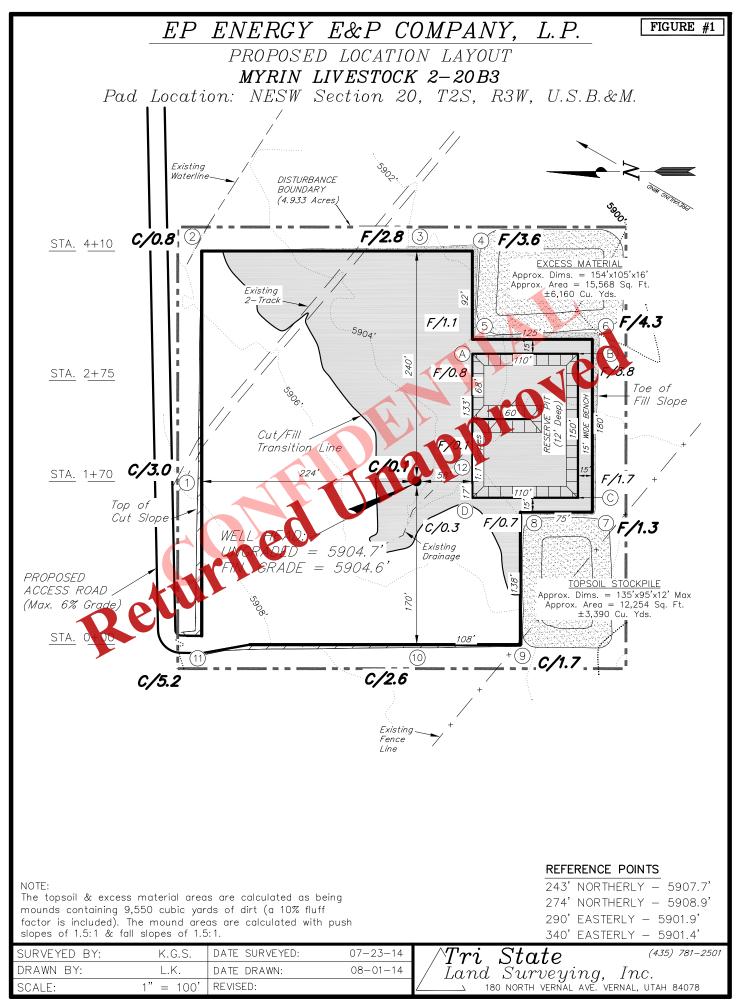
 DATE:
 08-06-14

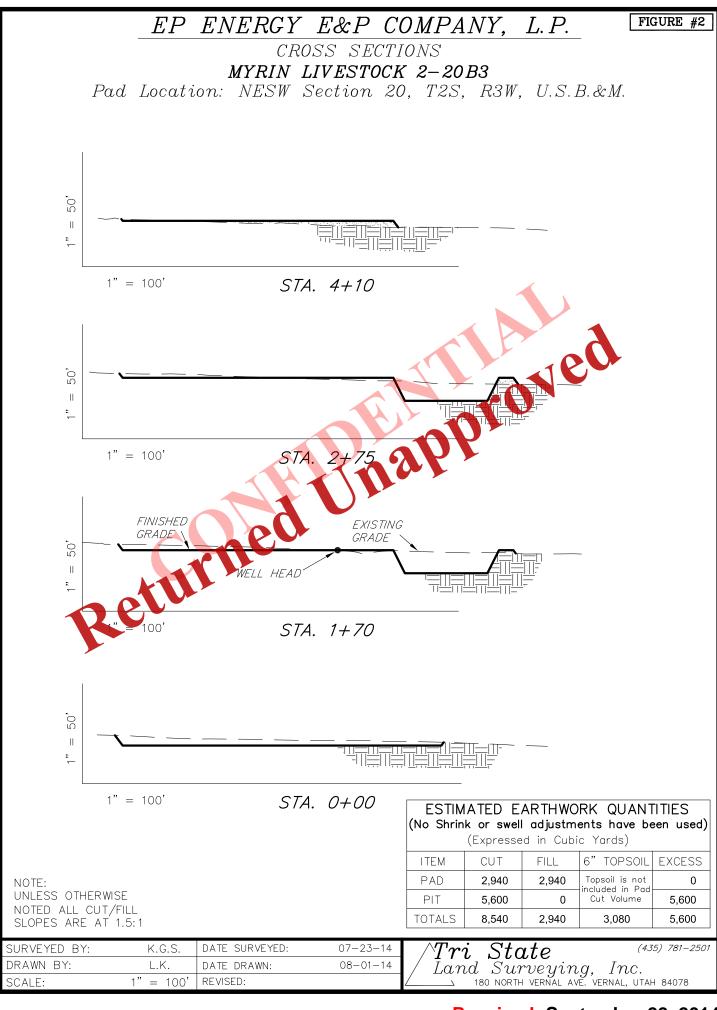
#### EP ENERGY E&P COMPANY, L.P.

Proposed Myrin Livestock 2-20B3 Sec. 20, T2S, R3W, U.S.B.&M. Duchesne County, UT.

COLOR PHOTOGRAPHS

SHEET P1

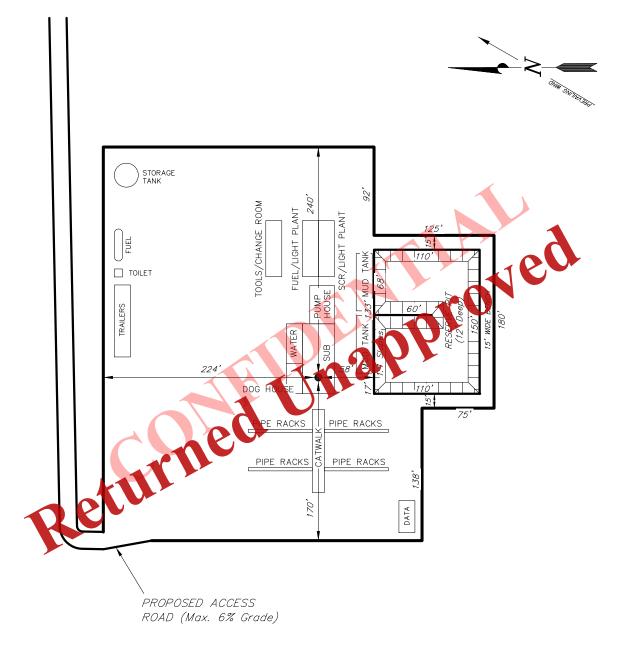




## EP ENERGY E&P COMPANY, L.P. TYPICAL RIG LAYOUT

MYRIN LIVESTOCK 2-20B3

Pad Location: NESW Section 20, T2S, R3W, U.S.B.&M.



SURVEYED BY:	K.G.S.	DATE SURVEYED:	07-23-14
DRAWN BY:	L.K.	DATE DRAWN:	08-01-14
SCALE:	1" = 100'	REVISED:	

 $NTri_{Land\ Surveying,\ Inc.}^{State}$ 

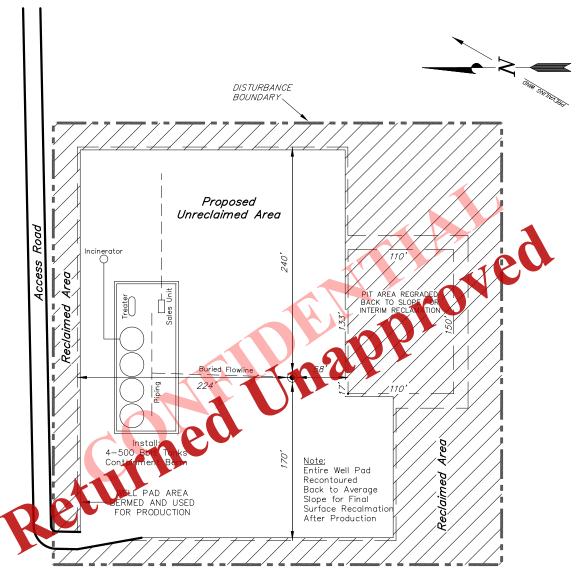
#### EP ENERGY E&P COMPANY, L.P.

FIGURE #3

RECLAMATION LAYOUT

#### MYRIN LIVESTOCK 2-20B3

Pad Location: NESW Section 20, T2S, R3W, U.S.B.&M.



#### Notes

 Reclaimed area to include seeding of approved vegetation and sufficient storm water management system.

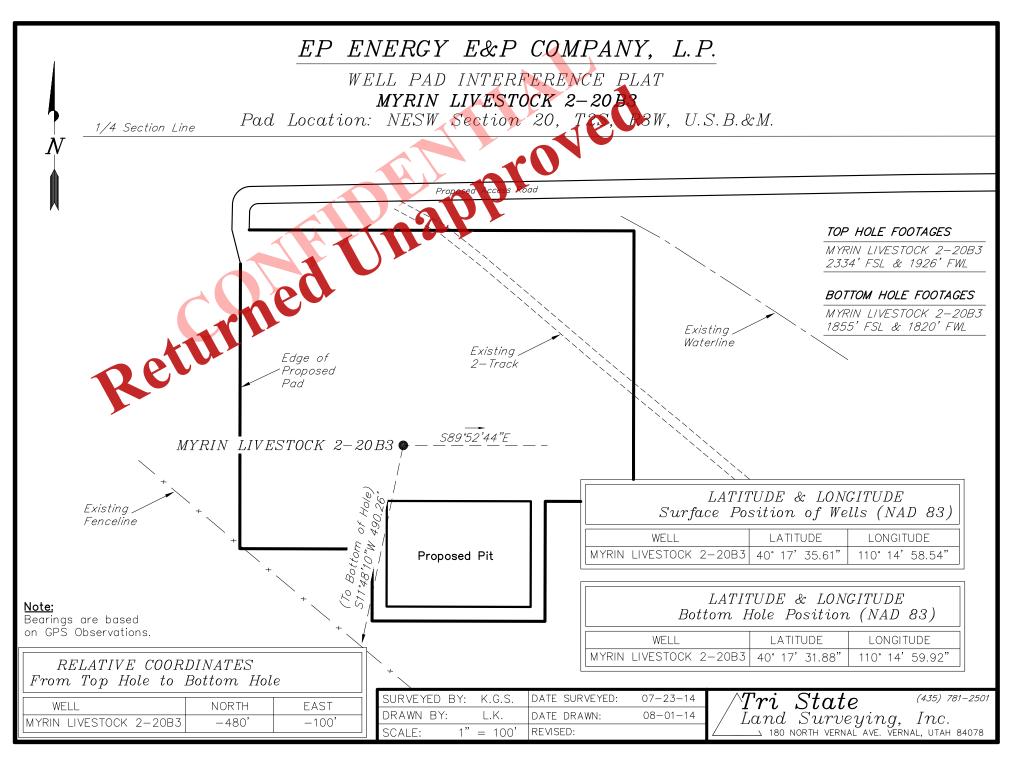
2. Actual Equipment Layout and Reclaimed Pad Surface Area May Change due to Production Requirements or Site Conditions.

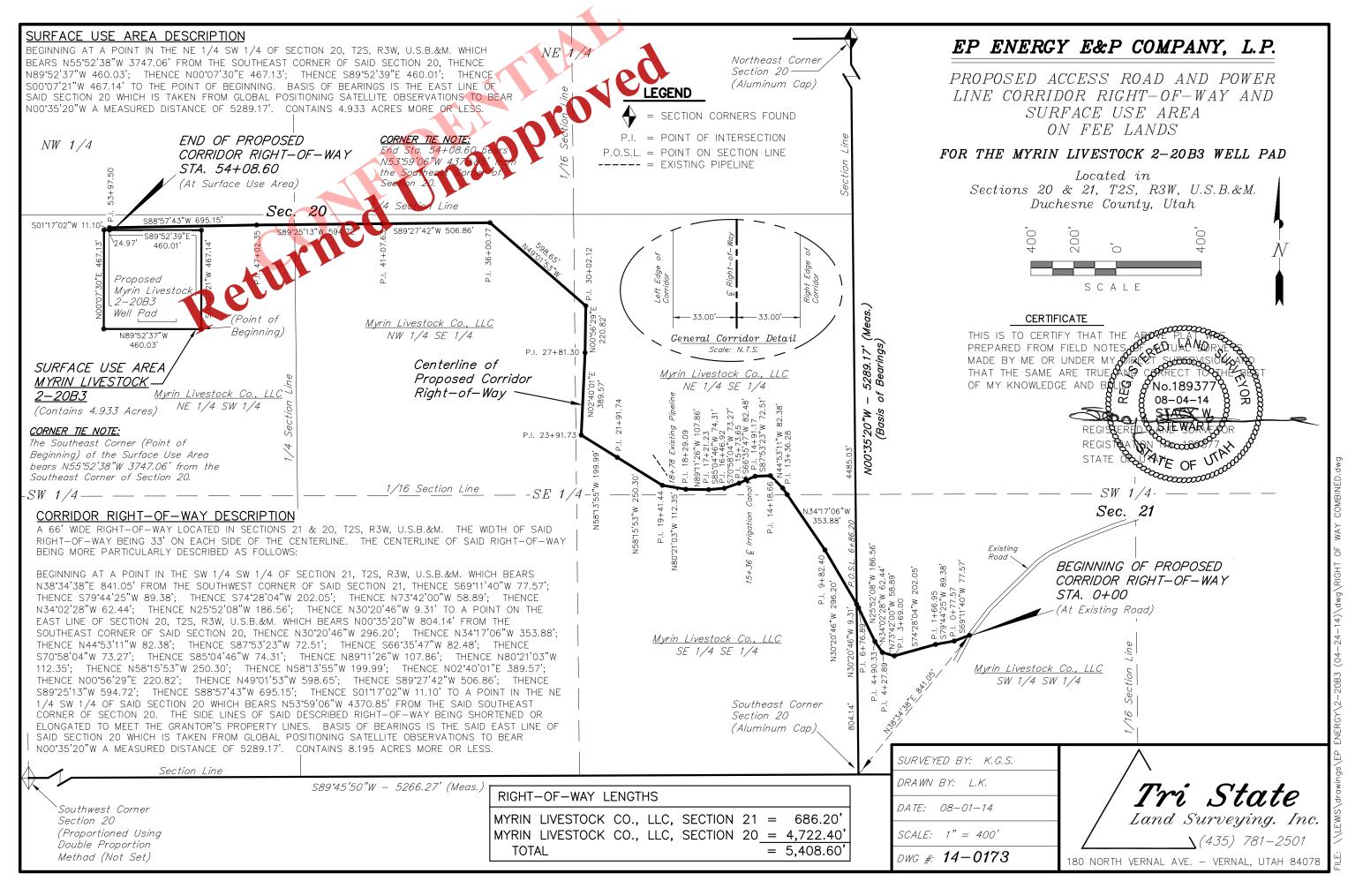
#### DISTURBED AREA:

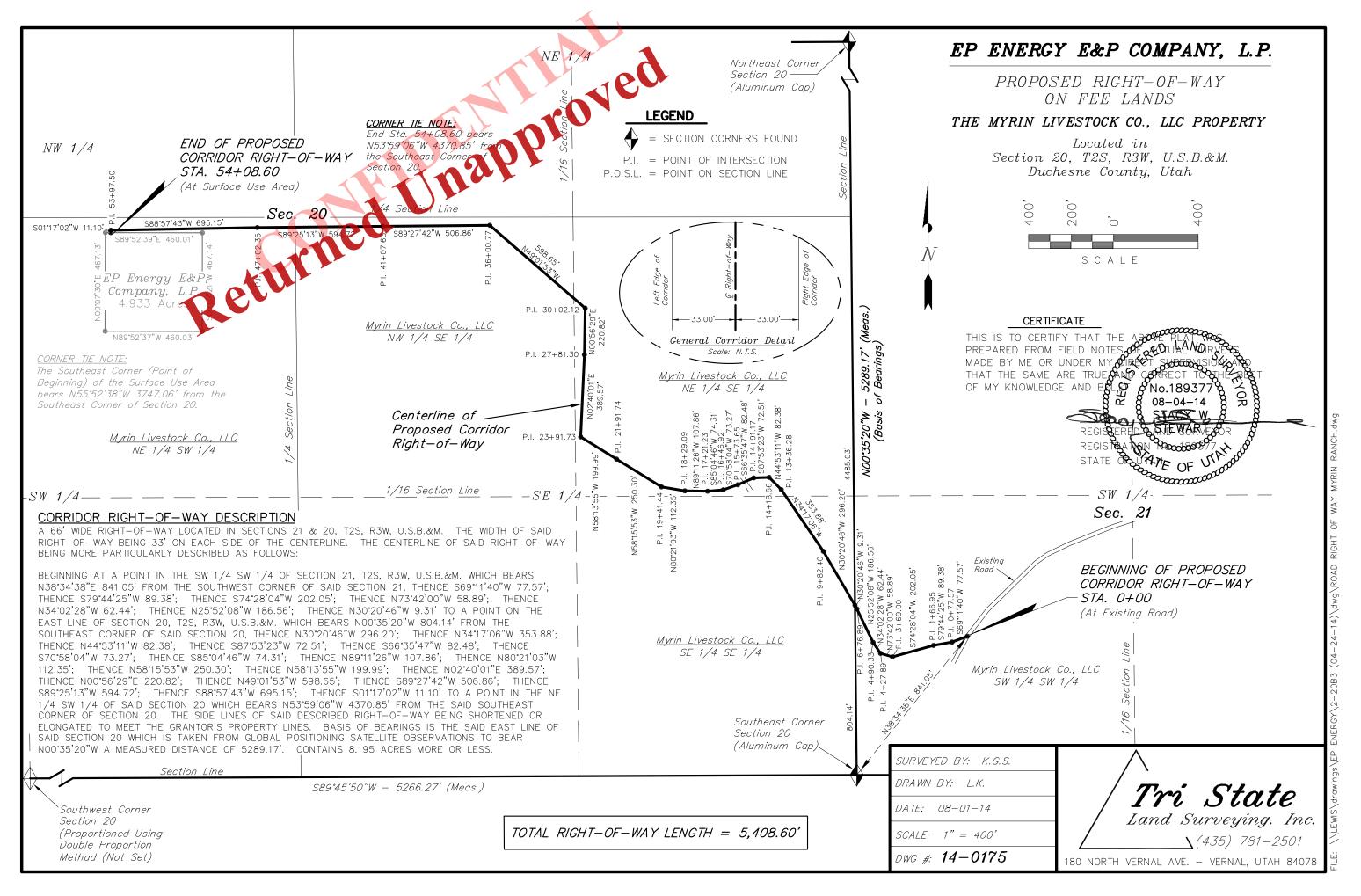
TOTAL DISTURBED AREA = 4.93 ACRES TOTAL RECLAIMED AREA = 2.20 ACRES UNRECLAIMED AREA = 2.73 ACRES

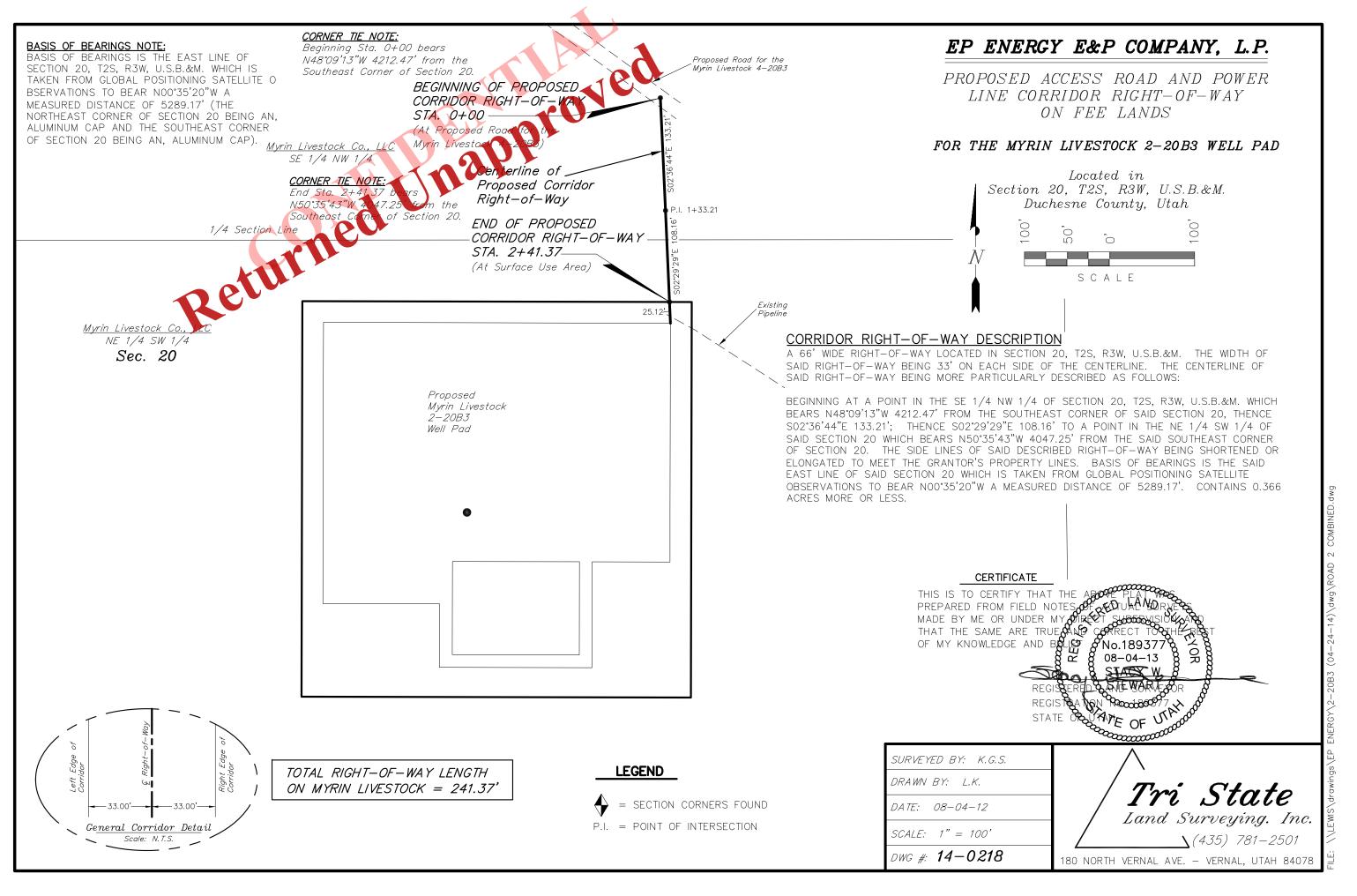
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DRAWN BY:	L.K.	DATE DRAWN:	08-01-14
SCALE:	1" = 100'	REVISED:	

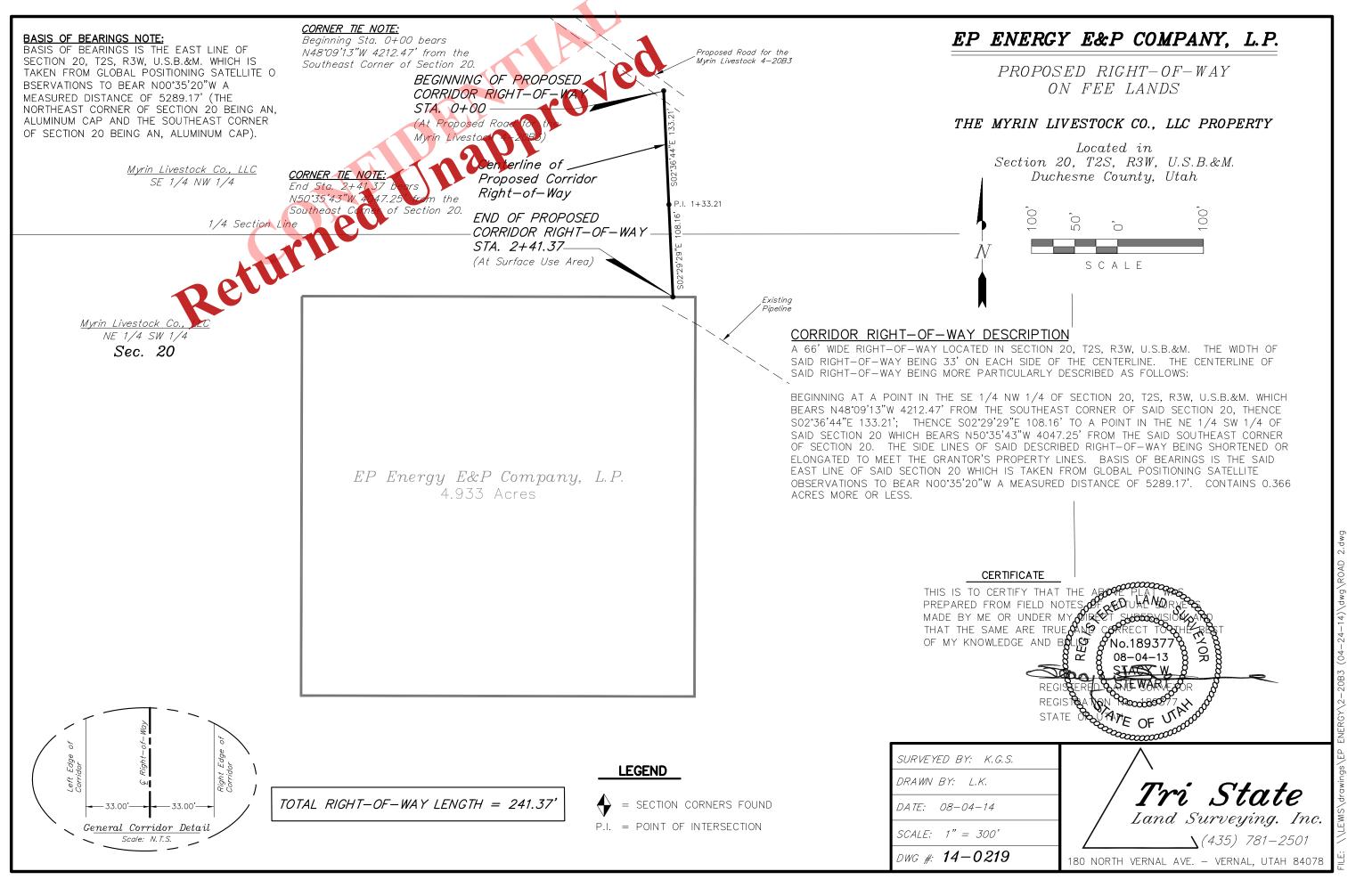
 $igg/Tri_{Land\ Surveying,\ Inc.}^{Tri\ State}$  180 North Vernal ave. Vernal, UTAH 84078

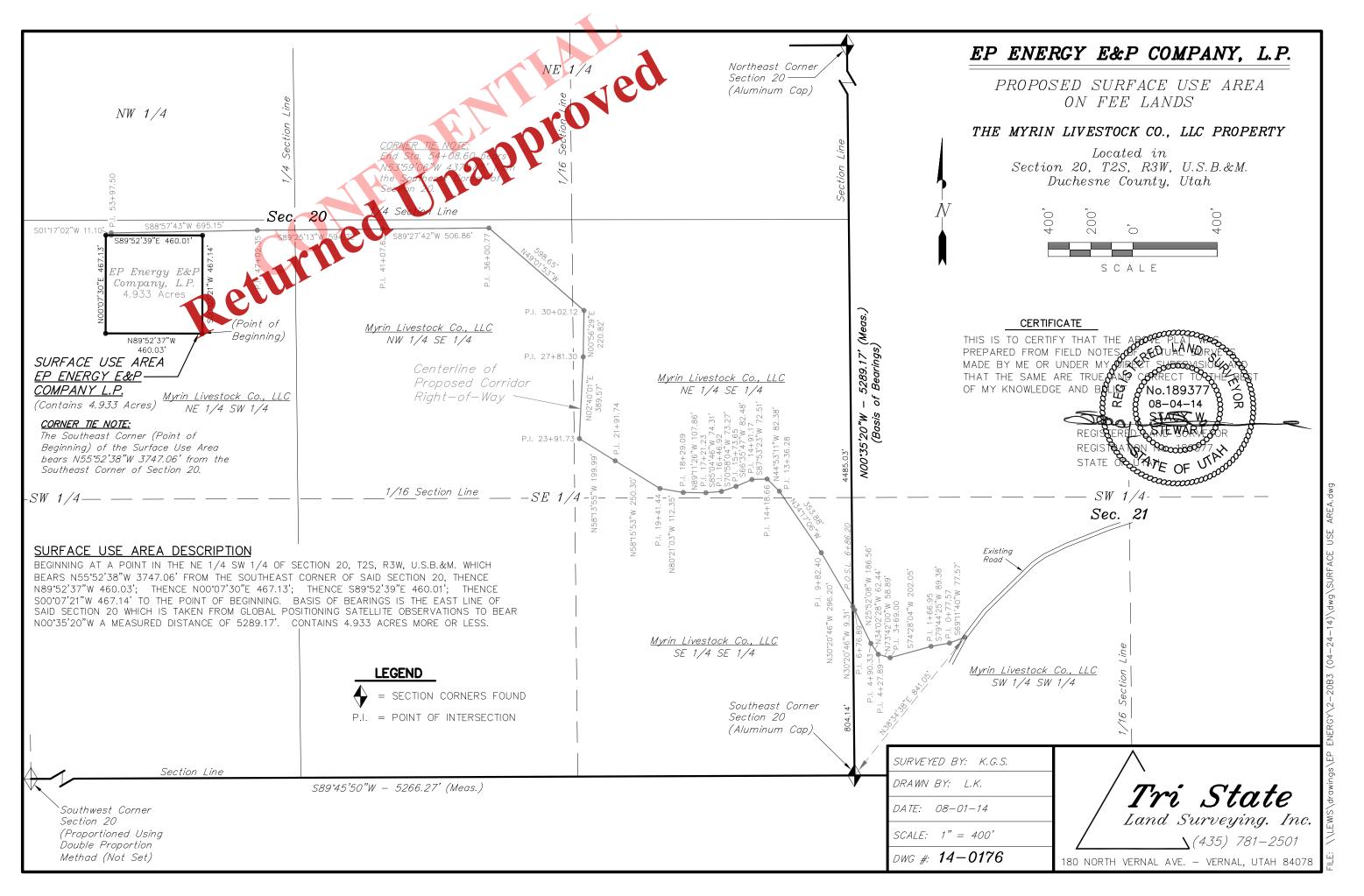


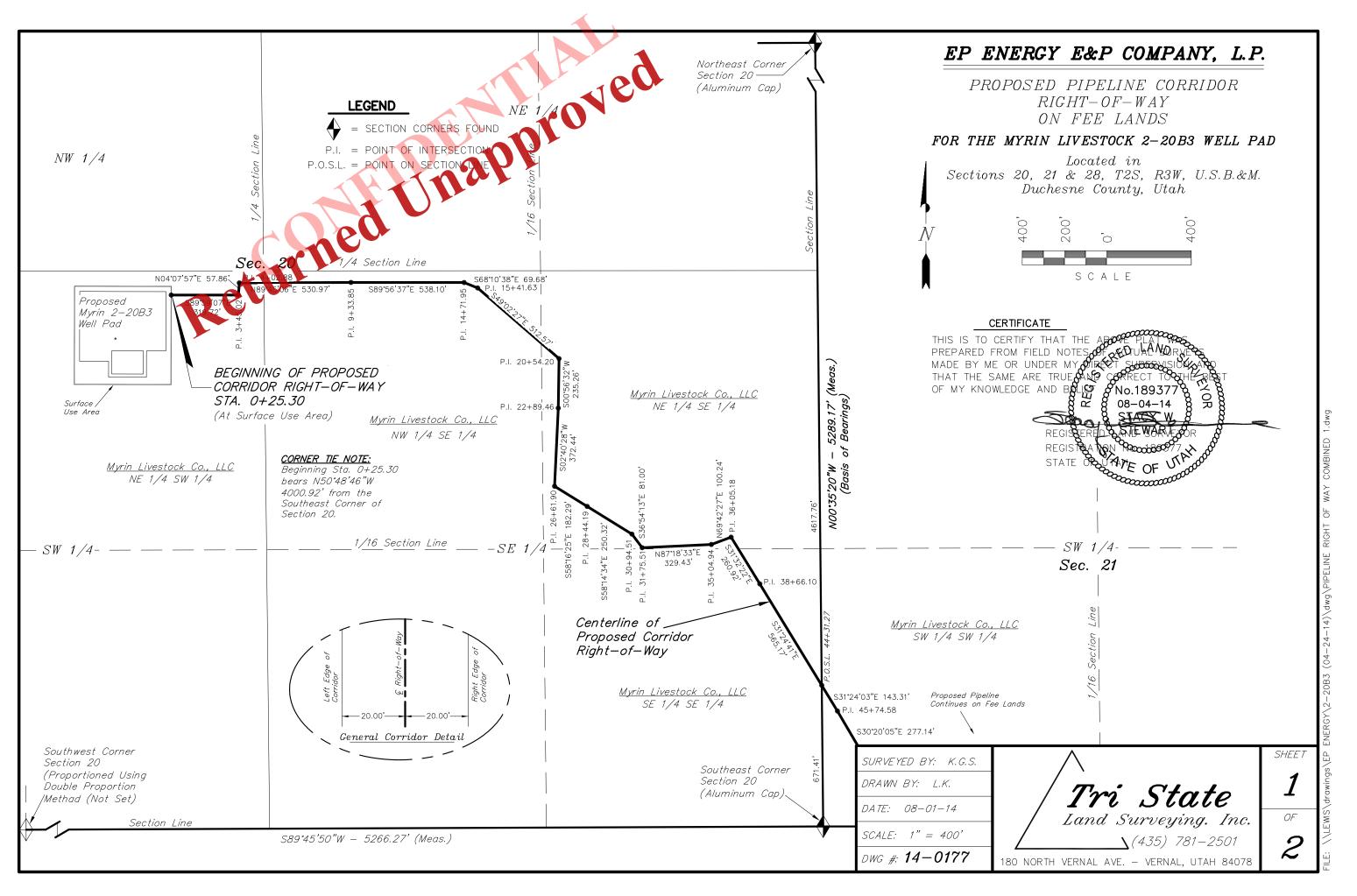


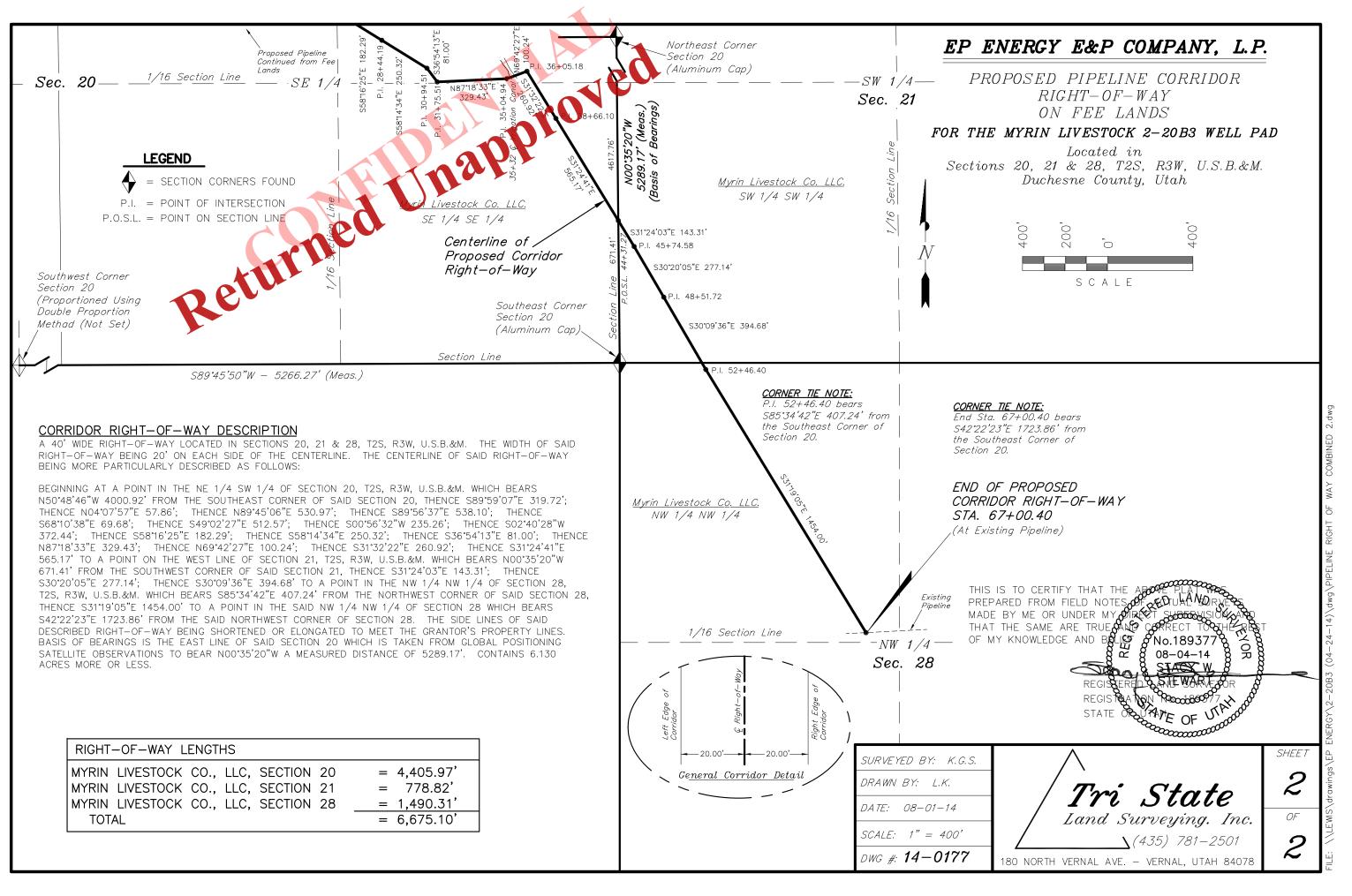


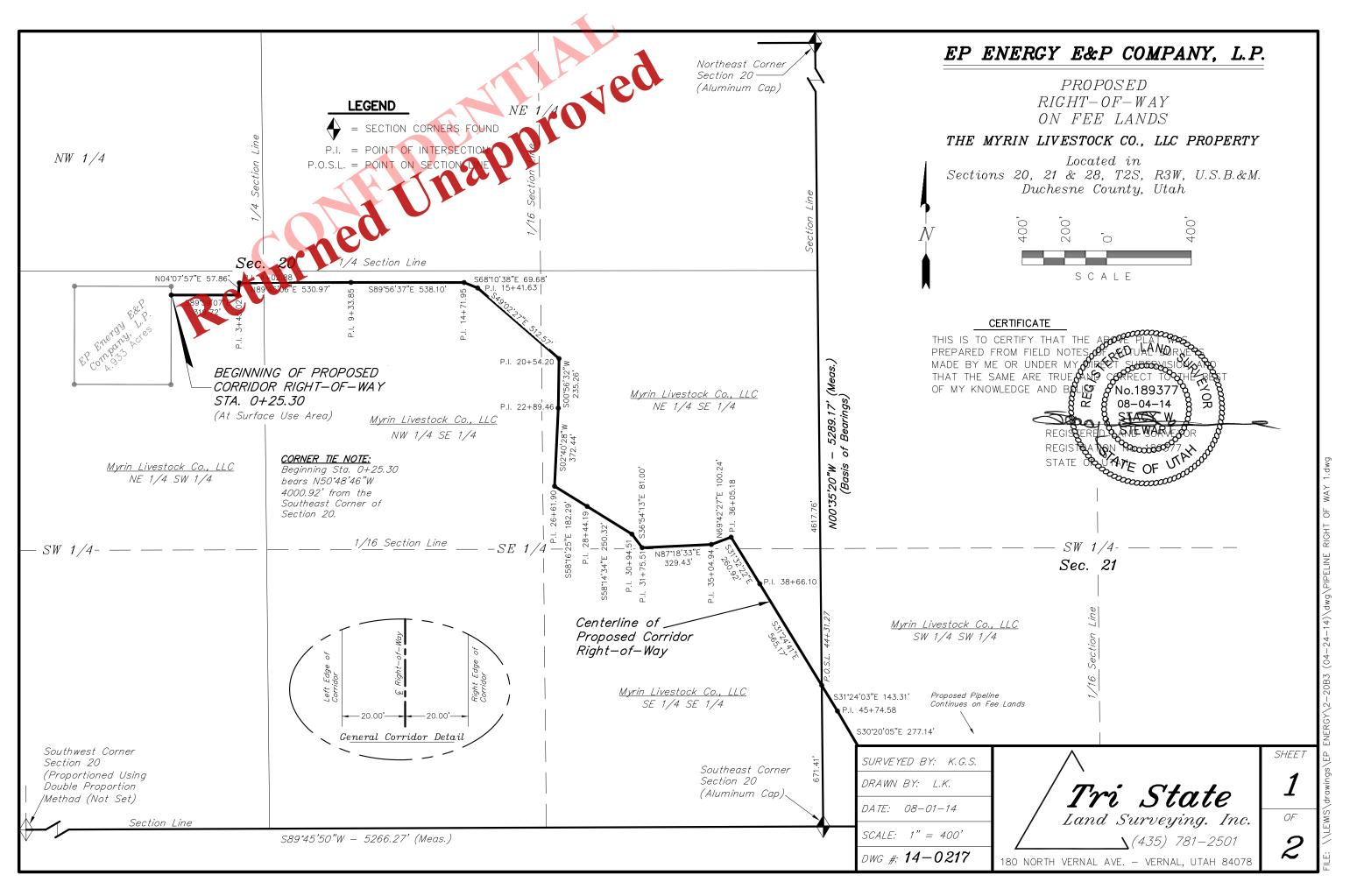


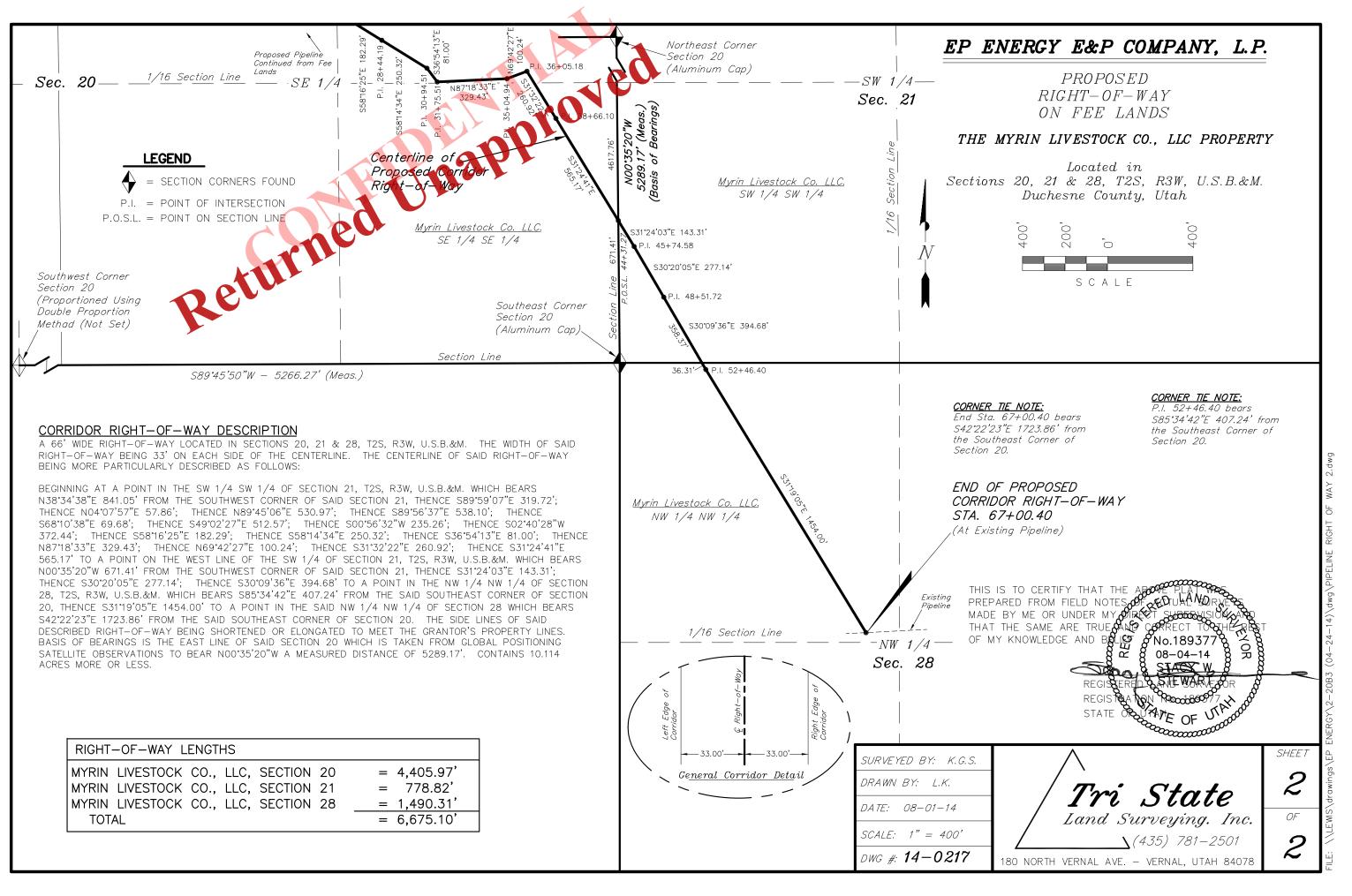




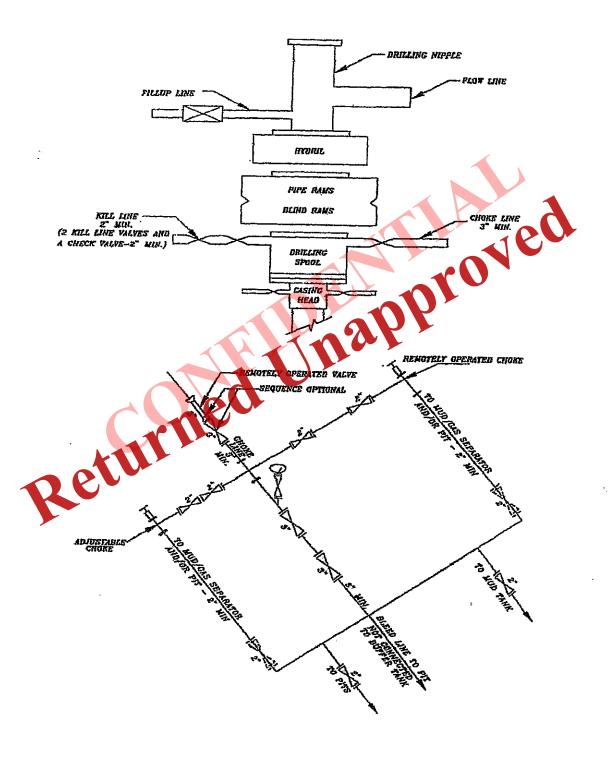


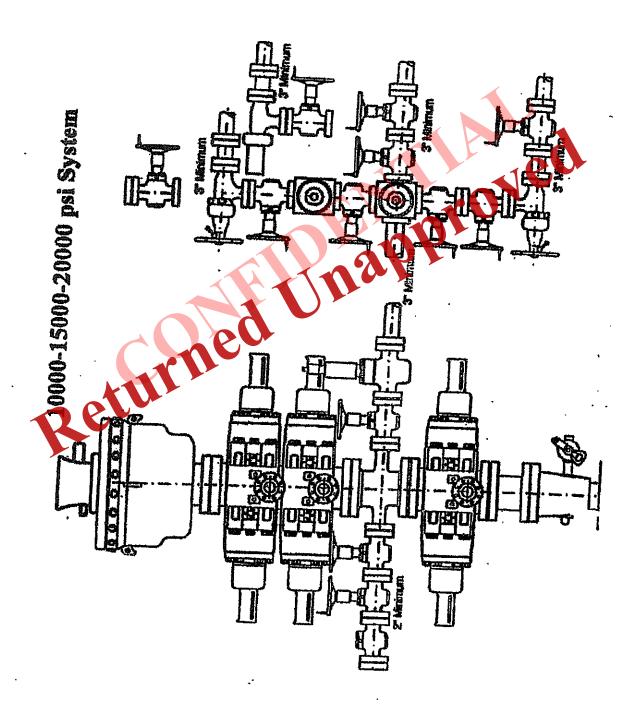






## 5M BOP STACK and CHOKE MANIFOLD SYSTEM





### T2S, R3W, U.S.B.&M. N89°49'59"W - 5270.98' (Meas.) Stone Aluminum Cap napprovel (Petross Used) 5326.29' (Meas. M., 60,85,00N WELL LOCATION: MYRIN LIVESTOCK 2-20B3 ELEV. UNGRADED GROUND = 5904.7' ELEV. FINISHED GRADE = 5904.6 Bottom. of Hole Proportioned Using Double Proportion Methad (Not Set) Aluminum Cap S89°45'50"W - 5266.27' (Meas.)

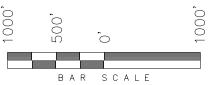
BASIS OF ELEV; Elevations are based on an N.G.S. OPUS Correction. LOCATION: LAT. 40°17'45.87" LONG. 110°23'30.60" (Tristate Aluminum Cap) NAD 83 Elev. 6604.28'

# NAD 83 (SURFACE LOCATION) LATITUDE = 40'17'36.61" (40.293224') LONGITUDE = 110'14'58.54" (110.249593') NAD 27 (SURFACE LOCATION) LATITUDE = 40'17'36.77" (40.293268') LONGITUDE = 110'14'55.98" (110.248882') NAD 83 (BOTTOM HOLE LOCATION) LATITUDE = 40'17'31.88" (40.292189') LONGITUDE = 110'14'59.92" (110.249977') NAD 27 (BOTTOM HOLE LOCATION) LATITUDE = 40'17'32.04" (40.292233') LONGITUDE = 110'14'57.36" (110.249266')

#### EP ENERGY E&P COMPANY, L.P.

WELL LOCATION, MYRIN LIVESTOCK 2-20B3, LOCATED AS SHOWN IN THE NE 1/4 SW 1/4 OF SECTION 20, T2S, R3W, U.S.B.&M. DUCHESNE COUNTY, UTAH.

TARGET BOTTOM HOLE, MYRIN LIVESTOCK 2-20B3, LOCATED AS SHOWN IN THE NE 1/4 SW 1/4 OF SECTION 20, T2S, R3W, U.S.B.&M. DUCHESNE COUNTY, UTAH.



#### NOTES:

- Well footages are measured at right angles to the Section Lines.
- 2. Bearings are based on Global Positioning Satellite observations.



= SECTION CORNERS LOCATED

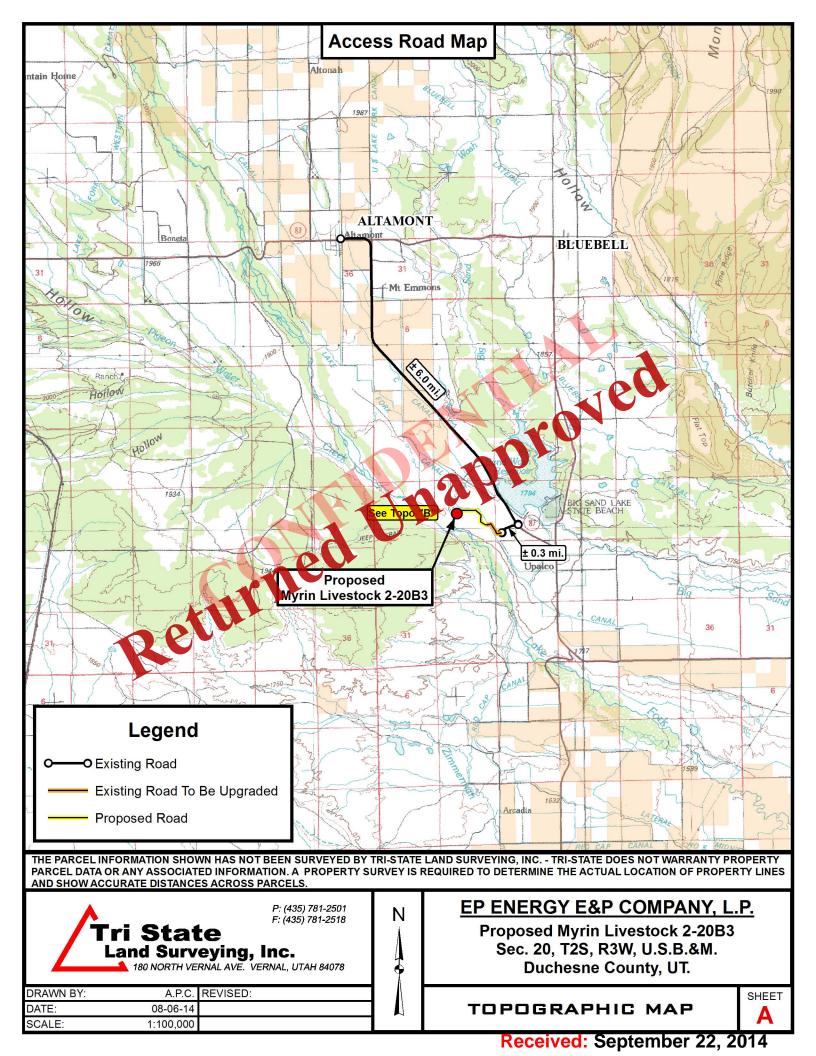
THIS IS TO CERTIFY THAT THE ABOVE PEOU WAS PREPARED FROM FIELD FOR SURVEYS MADE BY ME OR UNDER ANY SUPPRESSION AND THAT THE SAME ARE TRUE AND BEING. 189377 OF MY KNOWLEDGE ON BEING. 189377 OF STACY W.

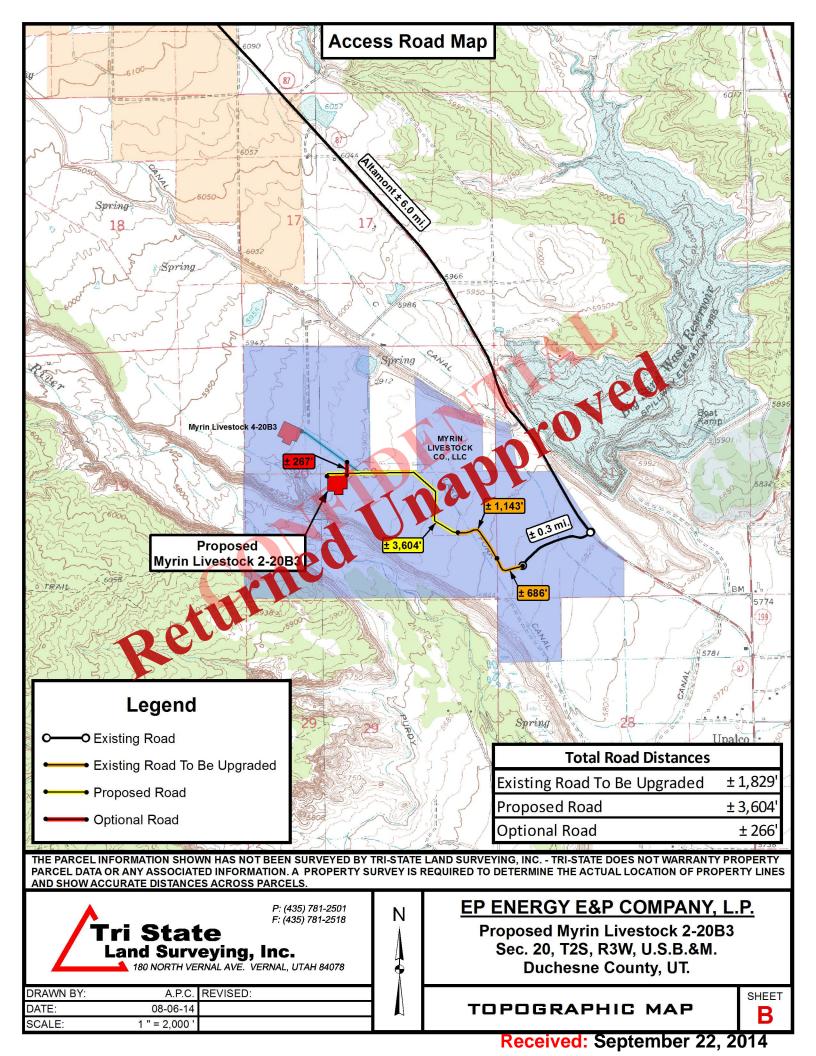
REGISTERED LAND SURVEYOR REGISTERED LAND SURVEYOR STATT OF BUANDS.

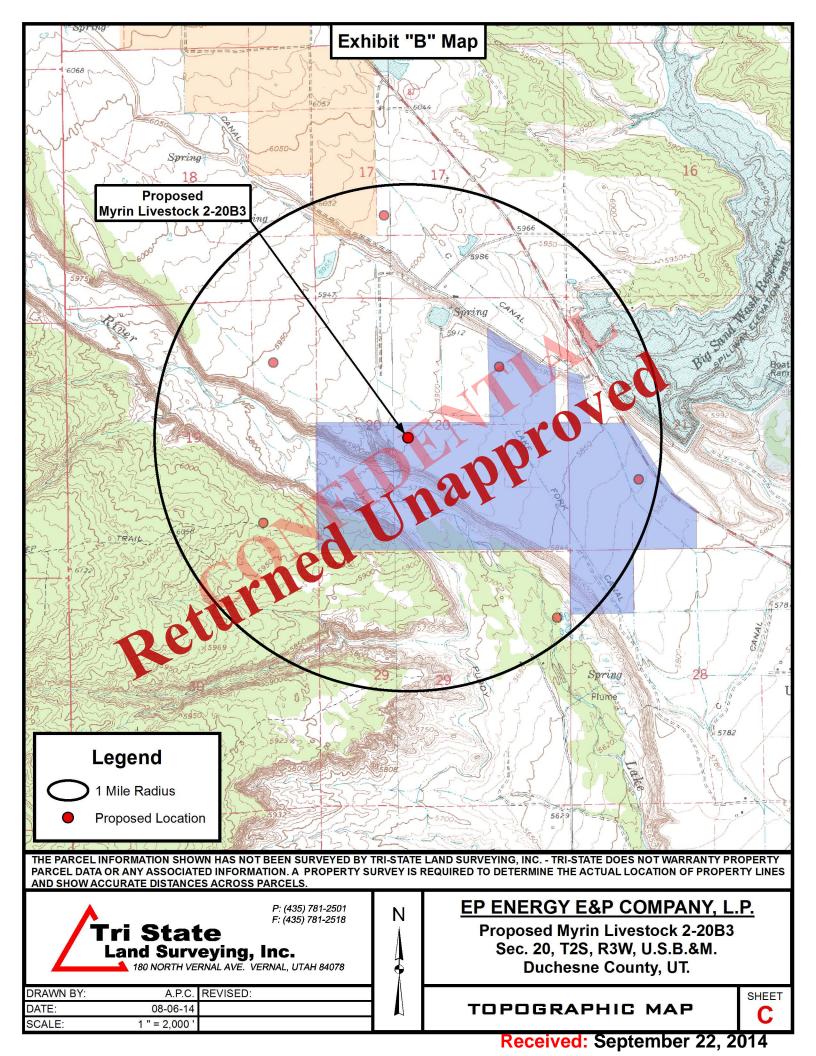
#### TRI STATE LAND SURVEYING & CONSULTING

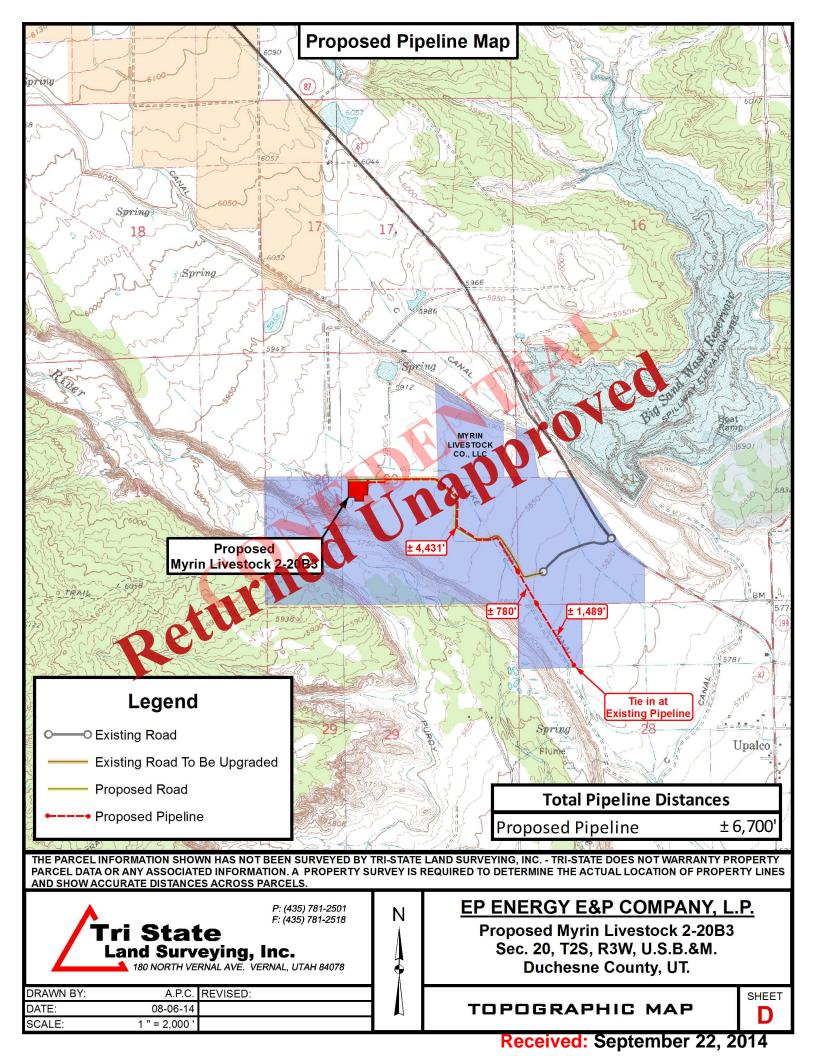
180 NORTH VERNAL AVE. – VERNAL, UTAH 84078 (435) 781–2501

DATE SURVEYED: 07-23-14	SURVEYED BY: K.G.S.
DATE DRAWN: 08-01-14	DRAWN BY: L.K.
REVISED:	SCALE: 1" = 1000'









#### **5D Plan Report**

**EP ENERGY** 

Field Name: UTAH\_ CENTRAL ZONE\_NAD83

Returned

**Site Name:** MYRIN LIVESTOCK 2-20B3

**Well Name:** *MYRIN LIVESTOCK 2-20B3* 

Plan: PLAN 1

12 September 2014



## **EP** ENERGY



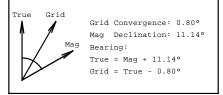


Plan Data for MYRIN LIVESTOCK 2-20B3 Field: UTAH\_ CENTRAL ZONE\_NAD83 Map Unit: USFt Vertical Reference Datum (VRD): Projected Coordinate System: NAD83 / Utah Central (ftUS) Site: MYRIN LIVESTOCK 2-20B3 Unit: USFeet TVD Reference: Company Name: EP ENERGY Northing: 7277972.68USft Latitude: Position: Easting: 1989195.91USft Longity Grid Convergence: 0.8 North Reference: True Elevation Above VRD: 0.00USft Comment: DUCHESNE COUTY, UT Slot: MYRIN LIVESTOCK 2-20B3 Offset is from Site cent +N/-S: 0.00USft Northing +E/-W: 0.00USft Casting Latitude: 40.293224° 91USft Longitude: -110.249593° Type: M ile Numb rtical Section: Position offset of origin from Slot centre: ¥S: 0.00USft Azimuth: 195.58° E/-W: 0.00USft Magnetic Parameters: Model: Field Strength: Declination: Dip: 11.14° 65.87° 2014-09-12 51984(nT) Comment: PRECISION 404 (17' RKB)

Formation Point Information: TVD Elevation Name (USft) (USft) (USft) GREEN RIVER (GRTN1) 6155.00 -233.40 6157.24 MAHOGANY BENCH 7152.00 -1230.40 7157.72 LOWER GREEN RIVER (TGR3) 8482.00 -2560.40 8492.36 WASATCH (W090TU2) 10232.00 -4310.40 10247.96

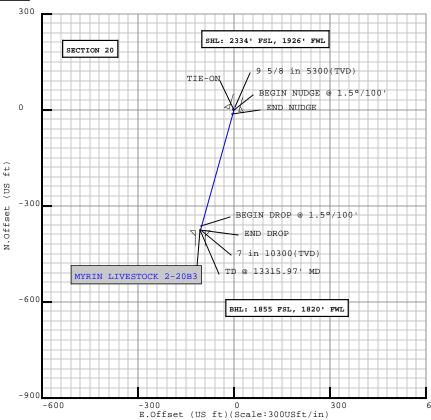
Casing Point Information:

Name MD TVD
(USft) (USft)
9 5/8 in 5300.00 5300.00
7 in 10315.97 10300.00



Plan Point Information: DogLeg Severity Unit: °/100.00ft Position offsets from Slot centre MD Inc Δ7 TVD +N/-S +F/-W VSec DLS Toolface Build (USft) (°) (USft) (USft) (USft) (USft) (DLSU) (DLSU) (DLSU) 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 5300 00 0 00 0 00 5300 00 0.00 9.9 9.99 9.99 0.00 0.00 0.00 5618.67 4.78 195.58 5618.30 -12.80 -3.57 13.28 195.6 1.50 0.00 9997.31 4.78 195.58 9981.71 -364.25 -101.60 378.16 0.00 10315.97 0.00 0.00 10300.00 -377.05 -105.17 391.44 1.50 180.0 -1.50 0.00 13315.97 0.00 0.00 13300.00 -377.05 -105.17 391.44 0.0 0.00 0.00

Target Set Information:
Name: MYRIN LIVESTOCK 2-20B3 PBHL (1855'FSL & 1820'FWL, SEC.20)
Name TVD Lat Long
(") (")
PBHL-1 13300.00 40.292189 -110.249970





#### **MYRIN LIVESTOCK 2-20B3**

**Field Name** 

UTAH CENTRAL

ZONE NAD83

Vertical Reference Datum (VRD):

**Projected Coordinate System :** NAD83 / Utah Central (ftUS)

Comment:

Units: US ft

Map Units: US ft

North Reference : True

**Position Site Name** 

Northing: 7277972.68 US ft Easting: 1989195.91 US ft

Elevation above VRD:5904.60 US ft MYRIN LIVESTOCK 2-

**+N / -S:** 0.00 US ft

**+E / -W:** 0.00 US ft

20B3

Convergence Angle: 0.80

Company Name: EP ENERGY

Latitude: 40° 17' 35.61" Longitude: -110° 14' 58.53"

Comment: DUCHESNE COUTY, UT

Position (Offsets relative to Site Centre)

Northing 72,7972.68 US ft

**Latitude:** 40°17'35.61" Fasting: 1989195.91 US ft Longitude: -110°14'58.53"

UWI:

Slot TVD Reference : Ground E Elevation above VRD

Comment :

**Well Name** 

MYRIN LIVESTOCK 2-

20B3

**Slot Name** 

MYRIN LIVESTOCK 2-

20B3

Type: Main well

Rig Height **Drill Floor**: 17.00 US ft Relative to VRD: 5921.60 US ft

Closure Distance: 391.441 US ft

Vertical Section (Position of Origin Relative to Slot )

**+N / -S:** 0.00 US ft

Comment: PRECISION 404 (17' RKB)

Closure Azimuth: 195.585°

**+E / -W :** 0.00 US ft

**Az**:195.58°

Plan: PLAN 1

**Magnetic Parameters** 

Weatherford International Limited 5D 7.5.8: 12 September 2014, 13:16:53 UTC Model: BGGM Field Strength: 51984.8nT **Dec:** 11.14° **Dip**: 65.87° Date: 12/Sep/2014

Plan Archive											
Plan Folder	Date	Comment		Plans							
P1	12/Sep/2014		<b>Plan</b> P1:V1 PLAN 1	<b>Date</b> 12/Sep/2014 12/Sep/2014	Comment						

**Target Set** 

Number of Targets: 1 Name: MYRIN LIVESTOCK 2-20B3 PBHL

(1855'FSL & 1820'FWL, SEC.20)

Comment:

TargetName:

PBHL-1

Cuboid

Northing: 7277594.22 US ft **+N / -S:** -377.03US ft Easting: 1989096.03US ft **+E / -W :** -105.16 US ft

Shape: TVD (Drill Floor): 13300.00 US ft

> Azimuth: 0.00° Orientation

**Dimensions** Length: 1.00 US ft

Position (Relative to Slot centre)

Latitude: 40°17'31.88" **Longitude:** -110°14'59.89"

Breadth: 1.00 US ft

Height: 1.00 US ft

Casing Points (Relative to Slot centre, TVD relative to Drill Floor) Name MD (US ft) Inc (°) Az (°) TVD (US ft) N.Offset E.Offset (US ft) (US ft) 0.00 0.00 9 5/8 in 0.00 5300.00 0.00 7 in 0.00 0.00 10300.00 -377.05 -105.17

Well path created using minimum curvature

Int	erpolated Point	ts (Relative to	Slot centre, TVD	relative to Dr	ill Floor )								
	MD (US ft)	Inc (°)	Az (°)	TVD (US ft)	N.Offset (US ft)	E.Offset (US ft)	Latitude (° ' '')	Longitude (°'")	DLS (°/100 US ft)	T.Face (°)	VS (US ft)	Clos.Az (°)	Comment
	0.00	0.00	0.00	0.00	0.00	0.00	40°17'35.61"	-110°14'58.53"	0.00	0.00	-0.00	0.00	TIE-ON
	100.00	0.00	0.00	100.00	0.00	0.00	40°17'35.61"	-110°14'58.53"	0.00	0.00	-0.00	0.00	
	200.00	0.00	0.00	200.00	0.00	0.00	40°17'35.61"	-110°14'58.53"	0.00	0.00	-0.00	0.00	
	300.00	0.00	0.00	300.00	0.00	0.00	40°17'35.61"	-110°14'58.53"	0.00	0.00	-0.00	0.00	
	400.00	0.00	0.00	400.00	0.00	0.00	40°17'35.61"	-110°14'58.53"	0.00	0.00	-0.00	0.00	
	500.00	0.00	0.00	500.00	0.00	0.00	40°17'35.61"	-110°14'58.53"	0.00	0.00	-0.00	0.00	
	600.00	0.00	0.00	600.00	0.00	0.00	40°17'35.61"	-110°14'58.53"	0.00	0.00	-0.00	0.00	

5D Plan Report

											61	
MD (US ft)	Inc (°)	Az (°)	TVD (US ft)	N.Offset (US ft)	E.Offset (US ft)	Latitude (°''')	Longitude (° ' '')	DLS (°/100 US ft)	T.Face (°)	VS (US ft)	Clos.Az (°)	Commer
700.00	0.00	0.00	700.00	0.00	0.00	40°17'35.61"	-110°14'58.53"	0.00	0.00	-0.00	0.00	
800.00	0.00	0.00	800.00	0.00	0.00	40°17'35.61"	-110°14'58.53"	0.00	0.00	-0.00	0.00	
900.00	0.00	0.00	900.00	0.00	0.00	40°17'35.61"	-110°14'58.53"	0.00	0.00	-0.00	0.00	
1000.00	0.00	0.00	1000.00	0.00	0.00	40°17'35.61"	-110°14'58.53"	0.00	0.00	-0.00	0.00	
1100.00	0.00	0.00	1100.00	0.00	0.00	40°17'35.61"	-110°14'58.53"	0.00	0.00	-0.00	0.00	
1200.00	0.00	0.00	1200.00	0.00	0.00	40°17'35.61"	-110°14'58.53"	0.00	0.00	-0.00	0.00	
1300.00	0.00	0.00	1300.00	0.00	0.00	40°17'35.61"	-110°14'58.53"	0.00	0.00	-0.00	0.00	
1400.00	0.00	0.00	1400.00	0.00	0.00	40°17'35.61"	-110°14'58.53"	0.00	0.00	-0.00	0.00	
1500.00	0.00	0.00	1500.00	0.00	0.00	40°17'35.61"	-110°14'58.53"	0.00	0.00	-0.00	0.00	
600.00	0.00	0.00	1600.00	0.00	0.00	40°17'35.61"	-110°14'58.53"	0.00	0.00	-0.00	0.00	
1700.00	0.00	0.00	1700.00	0.00	0.00	40°17'35.61"	-110°14'58.53"	0.00	0.90	-0.00	0.00	
.800.00	0.00	0.00	1800.00	0.00	0.00	40°17'35.61"	-110°14'58.53"	0.00	0.00	-0.00	0.00	
900.00	0.00	0.00	1900.00	0.00	0.00	40°17'35.61"	-110°14'58.53"	0.00	0.00	-0.00	0.00	
2000.00	0.00	0.00	2000.00	0.00	0.00	40°17'35.61"	-110°14'58.53"	0.00	0.00	-0.00	0.00	
2100.00	0.00	0.00	2100.00	0.00	0.00	40°17'35.61"	-110°14'58.53"	0.00	0.00	-0.00	0.00	
200.00	0.00	0.00	2200.00	0.00	0.00	40°17'35.61"	-110°14'58.53"	0.00	0.00	-0.00	0.00	
300.00	0.00	0.00	2300.00	0.00	0.00	40°17'35.61"	.110°14'58.53"	0.00	0.00	-0.00	0.00	
400.00	0.00	0.00	2400.00	0.00	0.00	40°17'35.61'	110°14'58.53"	0.00	0.00	-0.00	0.00	
500.00	0.00	0.00	2500.00	0.00	0.00	40°17'35.61	-110°14'58.53"	0.00	0.00	-0.00	0.00	
600.00	0.00	0.00	2600.00	0.00	000	40°17'35.61"	-110°14'58.53"	0.00	0.00	-0.00	0.00	
700.00	0.00	0.00	2700.00	0.00	0.00	40°17'35.61"	-110°14'58.53"	0.00	0.00	-0.00	0.00	
800.00	0.00	0.00	2800.00	0.00	0.00	40°17'35.61"	-110°14'58.53"	0.00	0.00	-0.00	0.00	
900.00	0.00	0.00	2900.00	0.00	0.00	40°17'35.61"	-110°14'58.53"	0.00	0.00	-0.00	0.00	
8000.00	0.00	0.00	3000.00	0.00	0.00	40°17'35.61"	-110°14'58.53"	0.00	0.00	-0.00	0.00	
100.00	0.00	0.00	3100.00	00	0.00	40°17'35.61"	-110°14'58.53"	0.00	0.00	-0.00	0.00	
200.00	0.00	0.00	3200.00	0.00	0.00	40°17'35.61"	-110°14'58.53"	0.00	0.00	-0.00	0.00	
300.00	0.00	0.00	300.00	0.00	0.00	40°17'35.61"	-110°14'58.53"	0.00	0.00	-0.00	0.00	
400.00	0.00	0.00	3400.00	0.00	0.00	40°17'35.61"	-110°14'58.53"	0.00	0.00	-0.00	0.00	
500.00	0.00	0.00	3500.00	0.00	0.00	40°17'35.61"	-110°14'58.53"	0.00	0.00	-0.00	0.00	
600.00	0.00	0.00	3600.00	0.00	0.00	40°17'35.61"	-110°14'58.53"	0.00	0.00	-0.00	0.00	
700.00	0.00	0.00	3700.00	0.00	0.00	40°17'35.61"	-110°14'58.53"	0.00	0.00	-0.00	0.00	
800.00	0.00	0.00	3800.00	0.00	0.00	40°17'35.61"	-110°14'58.53"	0.00	0.00	-0.00	0.00	
900.00	0.00	0.00	3900.00	0.00	0.00	40°17'35.61"	-110°14'58.53"	0.00	0.00	-0.00	0.00	
000.00	0.00	0.00	4000.00	0.00	0.00	40°17'35.61"	-110°14'58.53"	0.00	0.00	-0.00	0.00	
100.00	0.00	0.00	4100.00	0.00	0.00	40°17'35.61"	-110°14'58.53"	0.00	0.00	-0.00	0.00	
200.00	0.00	0.00	4200.00	0.00	0.00	40°17'35.61"	-110°14'58.53"	0.00	0.00	-0.00	0.00	
	0.00	0.00	4200.00		0.00	40°17'35.61"	-110°14'58.53" -110°14'58.53"	0.00			0.00	
300.00				0.00					0.00	-0.00		
400.00	0.00	0.00	4400.00	0.00	0.00	40°17'35.61"	-110°14'58.53"	0.00	0.00	-0.00	0.00	
500.00	0.00	0.00	4500.00	0.00	0.00	40°17'35.61"	-110°14'58.53"	0.00	0.00	-0.00	0.00	
600.00	0.00 0.00	0.00	4600.00 4700.00	0.00 0.00	0.00	40°17'35.61" 40°17'35.61"	-110°14'58.53" -110°14'58.53"	0.00	0.00	-0.00 -0.00	0.00 0.00	

5D Plan Report

Interpolated Poi	nts (Relative to	Slot centre, TVI	D relative to Dri	ll Floor )								
MD (US ft)	Inc	Az (°)	TVD (US ft)	N.Offset (US ft)	E.Offset (US ft)	Latitude (°'")	Longitude (°'")	DLS (°/100 US ft)	T.Face	VS (US ft)	Clos.Az	Comment
4800.00	0.00	0.00	4800.00	0.00	0.00	40°17'35.61"	-110°14'58.53"	0.00	(°) 0.00	-0.00	(°) 0.00	
4900.00	0.00	0.00	4900.00	0.00	0.00	40°17'35.61"	-110°14'58.53"	0.00	0.00	-0.00	0.00	
5000.00	0.00	0.00	5000.00	0.00	0.00	40°17'35.61"	-110°14'58.53"	0.00	0.00	-0.00	0.00	
5100.00	0.00	0.00	5100.00	0.00	0.00	40°17'35.61"	-110°14'58.53"	0.00	0.00	-0.00	0.00	
5200.00	0.00	0.00	5200.00	0.00	0.00	40°17'35.61"	-110°14'58.53"	0.00	0.00	-0.00	0.00	
5300.00	0.00	0.00	5300.00	0.00	0.00	40°17'35.61"	-110°14'58.53"	0.00	0.00	-0.00	0.00	BEGIN NUDGE @
3300.00	0.00	0.00	3300.00	0.00	0.00	10 17 33.01	110 11 30.33	0.00	0.00	0.00	0.00	1.5°/100'; 9 5/8 in
5400.00	1.50	195.58	5399.99	-1.26	-0.35	40°17'35.59"	-110°14'58.54"	1.50	195.5	1.31	195.58	
5500.00	3.00	195.58	5499.91	-5.04	-1.41	40°17'35.56"	-110°14'58.55"	1.50	0.00	5.23	195.58	
5600.00	4.50	195.58	5599.69	-11.34	-3.16	40°17'35.49"	-110°14'58.58"	1.50	0.00	11.77	195.58	
5618.67	4.78	195.58	5618.30	-12.80	-3.57	40°17'35.48"	-110°14'58.58"	1.50	0.00	13.28	195.58	END NUDGE
5700.00	4.78	195.58	5699.35	-19.32	-5.39	40°17'35.42"	-110°14'58.60"	0.00	0.00	20.06	195.58	
5800.00	4.78	195.58	5799.00	-27.35	-7.63	40°17'35.34"	-110°14'58.63"	0 00	0.00	28.40	195.58	
5900.00	4.78	195.58	5898.65	-35.38	-9.87	40°17'35.26"	-110°14'58.66	0.00	0.00	36.73	195.58	
6000.00	4.78	195.58	5998.30	-43.40	-12.11	40°17'35.18"	-110°14'58.69"	0.00	0.00	45.06	195.58	
6100.00	4.78	195.58	6097.96	-51.43	-14.35	40°17'35.10"	110°14'58.72"	0.00	0.00	53.39	195.58	
6157.24	4.78	195.58	6155.00	-56.03	-15.63	40°17'35.05"	A110°14'58.74"	0.00	0.00	58.16	195.58	GREEN RIVER (GRTN1):
6200.00	4.78	195.58	6197.61	-59.46	-16.58	40°17'35.02"	-110°14'58.75"	0.00	0.00	61.73	195.58	
6300.00	4.78	195.58	6297.26	-67.48	-18.82	40°17'34.94"	-110°14'58.78"	0.00	0.00	70.06	195.58	
6400.00	4.78	195.58	6396.91	-75.51	-21.06	40°17'34.86"	-110°14'58.81"	0.00	0.00	78.39	195.58	
6500.00	4.78	195.58	6496.57	-83.54	-23,30	40°17'34.78"	-110°14'58.84"	0.00	0.00	86.73	195.58	
6600.00	4.78	195.58	6596.22	-91.56	-25.54	40°17'34.70"	-110°14'58.86"	0.00	0.00	95.06	195.58	
6700.00	4.78	195.58	6695.87	99.59	-27.78	40°17'34.62"	-110°14'58.89"	0.00	0.00	103.39	195.58	
6800.00	4.78	195.58	6795.52	-107.62	-30.02	40°17'34.54"	-110°14'58.92"	0.00	0.00	111.73	195.58	
6900.00	4.78	195.58	6895	-115.64	-32.26	40°17'34.46"	-110°14'58.95"	0.00	0.00	120.06	195.58	
7000.00	4.78	195.58	6994.83	-123.67	-34.49	40°17'34.38"	-110°14'58.98"	0.00	0.00	128.39	195.58	
7100.00	4.78	195.58	7094.48	-131.70	-36.73	40°17'34.30"	-110°14'59.01"	0.00	0.00	136.72	195.58	
7157.72	4.78	195.58	7152.00	-136.33	-38.02	40°17'34.26"	-110°14'59.03"	0.00	0.00	141.53	195.58	MAHOGANY BENCH:
7200.00	4.78	195.58	7194.13	-139.72	-38.97	40°17'34.23"	-110°14'59.04"	0.00	0.00	145.06	195.58	
7300.00	4.78	195.58	7293.78	-147.75	-41.21	40°17'34.15"	-110°14'59.07"	0.00	0.00	153.39	195.58	
7400.00	4.78	195.58	7393.44	-155.78	-43.45	40°17'34.07"	-110°14'59.10"	0.00	0.00	161.72	195.58	
7500.00	4.78	195.58	7493.09	-163.80	-45.69	40°17'33.99"	-110°14'59.12"	0.00	0.00	170.06	195.58	
7600.00	4.78	195.58	7592.74	-171.83	-47.93	40°17'33.91"	-110°14'59.15"	0.00	0.00	178.39	195.58	
7700.00	4.78	195.58	7692.39	-179.86	-50.17	40°17'33.83"	-110°14'59.18"	0.00	0.00	186.72	195.58	
7800.00	4.78	195.58	7792.04	-187.88	-52.40	40°17'33.75"	-110°14'59.21"	0.00	0.00	195.05	195.58	
7900.00	4.78	195.58	7891.70	-195.91	-54.64	40°17'33.67"	-110°14'59.24"	0.00	0.00	203.39	195.58	
8000.00	4.78	195.58	7991.35	-203.94	-56.88	40°17'33.59"	-110°14'59.27"	0.00	0.00	211.72	195.58	
8100.00	4.78	195.58	8091.00	-211.96	-59.12	40°17'33.51"	-110°14'59.30"	0.00	0.00	220.05	195.58	
8200.00	4.78	195.58	8190.65	-219.99	-61.36	40°17'33.43"	-110°14'59.33"	0.00	0.00	228.39	195.58	

5D Plan Report

Interpolated Poin	nts (Relative to	Slot centre, TV	D relative to Dril	l Floor )								
MD (US ft)	Inc	Az (8)	TVD (US ft)	N.Offset (US ft)	E.Offset (US ft)	Latitude	Longitude (° ' '')	DLS (°/100 US ft)	T.Face	VS (US ft)	Clos.Az	Comment
8300.00	(°) 4.78	(°) 195.58	8290.30	-228.02	-63.60	(° ' ") 40°17'33.35"	-110°14'59.36"	0.00	(°) 0.00	(US ft) 236.72	(°) 195.58	
8400.00	4.78	195.58	8389.96	-236.04	-65.84	40°17'33.27"	-110°14'59.38"	0.00	0.00	245.05	195.58	
8492.36	4.78	195.58	8482.00	-243.46	-67.90	40°17'33.20"	-110°14'59.41"	0.00	0.00	252.75	195.58	LOWER GREEN
0432.30	4.70	133.30	0402.00	243.40	07.50	40 17 33.20	110 14 33.41	0.00	0.00	232.73	193.50	RIVER (TGR3):
8500.00	4.78	195.58	8489.61	-244.07	-68.08	40°17'33.19"	-110°14'59.41"	0.00	0.00	253.39	195.58	
8600.00	4.78	195.58	8589.26	-252.10	-70.31	40°17'33.12"	-110°14'59.44"	0.00	0.00	261.72	195.58	
8700.00	4.78	195.58	8688.91	-260.12	-72.55	40°17'33.04"	-110°14'59.47"	0.00	0.00	270.05	195.58	
8800.00	4.78	195.58	8788.57	-268.15	-74.79	40°17'32.96"	-110°14'59.50"	0.00	0.00	278.38	195.58	
8900.00	4.78	195.58	8888.22	-276.18	-77.03	40°17'32.88"	-110°14'59.53"	0.00	0.00	286.72	195.58	
9000.00	4.78	195.58	8987.87	-284.20	-79.27	40°17'32.80"	-110°14'59.56"	0.00	0.00	295.05	195.58	
9100.00	4.78	195.58	9087.52	-292.23	-81.51	40°17'32.72"	-110°14'59.59"	0.00	0.00	303.38	195.58	
9200.00	4.78	195.58	9187.17	-300.26	-83.75	40°17'32.64"	-110°14'59.62"	0.00	00	311.72	195.58	
9300.00	4.78	195.58	9286.83	-308.28	-85.99	40°17'32.56"	-110°14'59.64"	0.00	0.00	320.05	195.58	
9400.00	4.78	195.58	9386.48	-316.31	-88.22	40°17'32.48"	-110°14'59.67"	0.00	0.00	328.38	195.58	
9500.00	4.78	195.58	9486.13	-324.34	-90.46	40°17'32.40"	-110°14'59.70"	0.00	0.00	336.72	195.58	
9600.00	4.78	195.58	9585.78	-332.36	-92.70	40°17'32.32"	-110°14'59.73'	0.00	0.00	345.05	195.58	
9700.00	4.78	195.58	9685.44	-340.39	-94.94	40°17'32.24"	10 14'5 .76	0.00	0.00	353.38	195.58	
9800.00	4.78	195.58	9785.09	-348.42	-97.18	40°17'32.16"	-110°14'59.79"	0.00	0.00	361.71	195.58	
9900.00	4.78	195.58	9884.74	-356.44	-99.42	40°17'32.08"	-110°14'59.82"	0.00	0.00	370.05	195.58	
9997.31	4.78	195.58	9981.71	-364.25	-101.60	40°17'32.01"	-110°14'59.85"	0.00	0.00	378.16	195.58	BEGIN DROP @ 1.5°/100'
10000.00	4.74	195.58	9984.39	-364.47	-101.66	40°17'32.00"	-110°14'59.85"	1.50	180.00	378.38	195.58	
10100.00	3.24	195.58	10084.15	-371.17	103.59	40°17'31.94"	-110°14'59.87"	1.50	180.00	385.34	195.58	
10200.00	1.74	195.58	10184.05	-375.35	104.69	40°17'31.90"	-110°14'59.89"	1.50	180.00	389.68	195.58	
10247.96	1.02	195.58	10232.00	376.47	-105.00	40°17'31.89"	-110°14'59.89"	1.50	180.00	390.84	195.58	WASATCH (W090TU2):
10300.00	0.24	195.58	10284.03	-3/7.02	-105.16	40°17'31.88"	-110°14'59.89"	1.50	180.00	391.41	195.58	
10315.97	0.00	0.00	10300.00	-377.05	-105.17	40°17'31.88"	-110°14'59.89"	1.50	180.00	391.44	195.58	END DROP; 7 in
10400.00	0.00	0.00	10384 03	-377.05	-105.17	40°17'31.88"	-110°14'59.89"	0.00	0.00	391.44	195.58	
10500.00	0.00	0.00	0484.03	-377.05	-105.17	40°17'31.88"	-110°14'59.89"	0.00	0.00	391.44	195.58	
10600.00	0.00	0.00	10584.03	-377.05	-105.17	40°17'31.88"	-110°14'59.89"	0.00	0.00	391.44	195.58	
10700.00	0.00	0.00	10684.03	-377.05	-105.17	40°17'31.88"	-110°14'59.89"	0.00	0.00	391.44	195.58	
10800.00	0.00	0.00	10784.03	-377.05	-105.17	40°17'31.88"	-110°14'59.89"	0.00	0.00	391.44	195.58	
10900.00	0.00	0.00	10884.03	-377.05	-105.17	40°17'31.88"	-110°14'59.89"	0.00	0.00	391.44	195.58	
11000.00	0.00	0.00	10984.03	-377.05	-105.17	40°17'31.88"	-110°14'59.89"	0.00	0.00	391.44	195.58	
11100.00	0.00	0.00	11084.03	-377.05	-105.17	40°17'31.88"	-110°14'59.89"	0.00	0.00	391.44	195.58	
11200.00	0.00	0.00	11184.03	-377.05	-105.17	40°17'31.88"	-110°14'59.89"	0.00	0.00	391.44	195.58	
11300.00	0.00	0.00	11284.03	-377.05	-105.17	40°17'31.88"	-110°14'59.89"	0.00	0.00	391.44	195.58	
11400.00	0.00	0.00	11384.03	-377.05	-105.17	40°17'31.88"	-110°14'59.89"	0.00	0.00	391.44	195.58	
11500.00	0.00	0.00	11484.03	-377.05	-105.17	40°17'31.88"	-110°14'59.89"	0.00	0.00	391.44	195.58	
11600.00	0.00	0.00	11584.03	-377.05	-105.17	40°17'31.88"	-110°14'59.89"	0.00	0.00	391.44	195.58	
11700.00	0.00	0.00	11684.03	-377.05	-105.17	40°17'31.88"	-110°14'59.89"	0.00	0.00	391.44	195.58	

#### 5D Plan Report

MD (US ft)	Inc (°)	Az (°)	TVD (US ft)	N.Offset (US ft)	E.Offset (US ft)	Latitude (°'")	Longitude (° ' '')	DLS (°/100 US ft)	T.Face (°)	VS (US ft)	Clos.Az (°)	Comment
11800.00	0.00	0.00	11784.03	-377.05	-105.17	40°17'31.88"	-110°14'59.89"	0.00	0.00	391.44	195.58	
11900.00	0.00	0.00	11884.03	-377.05	-105.17	40°17'31.88"	-110°14'59.89"	0.00	0.00	391.44	195.58	
12000.00	0.00	0.00	11984.03	-377.05	-105.17	40°17'31.88"	-110°14'59.89"	0.00	0.00	391.44	195.58	
12100.00	0.00	0.00	12084.03	-377.05	-105.17	40°17'31.88"	-110°14'59.89"	0.00	0.00	391.44	195.58	
12200.00	0.00	0.00	12184.03	-377.05	-105.17	40°17'31.88"	-110°14'59.89"	0.00	0.00	391.44	195.58	
12300.00	0.00	0.00	12284.03	-377.05	-105.17	40°17'31.88"	-110°14'59.89"	0.00	0.00	391.44	195.58	
12400.00	0.00	0.00	12384.03	-377.05	-105.17	40°17'31.88"	-110°14'59.89"	0.00	0.00	391.44	195.58	
12500.00	0.00	0.00	12484.03	-377.05	-105.17	40°17'31.88"	-110°14'59.89"	0.00	0.00	391.44	195.58	
12600.00	0.00	0.00	12584.03	-377.05	-105.17	40°17'31.88"	-110°14'59.89"	0.00	0.00	391.44	195.58	
12700.00	0.00	0.00	12684.03	-377.05	-105.17	40°17'31.88"	-110°14'59.89"	0.00	0.00	391.44	195.58	
12800.00	0.00	0.00	12784.03	-377.05	-105.17	40°17'31.88"	-110°14'59.89"	0.00	0.90	391.44	195.58	
12900.00	0.00	0.00	12884.03	-377.05	-105.17	40°17'31.88"	-110°14'59.89"	0.00	0.00	391.44	195.58	
3000.00	0.00	0.00	12984.03	-377.05	-105.17	40°17'31.88"	-110°14'59.89"	0.00	0.00	391.44	195.58	
13100.00	0.00	0.00	13084.03	-377.05	-105.17	40°17'31.88"	-110°14'59.89"	0.00	0.00	391.44	195.58	
3200.00	0.00	0.00	13184.03	-377.05	-105.17	40°17'31.88"	-110°14'59.89"	0.00	0.00	391.44	195.58	
3300.00	0.00	0.00	13284.03	-377.05	-105.17	40°17'31.88"	-110°14'59.89"	0.00	0.00	391.44	195.58	
.3315.97	0.00	0.00	13300.00	-377.05	-105.17	40°17'31.88"	10°14'59.89"	0.00	0.00	391.44	195.58	TD @ 13315 MD
nation Points	(Relative	to Slot centre, T\		l Floor )	4-	T/D	N.Offs		E.Offset	F.Dip		E Div
Name		MD (US ft)	Inc (°)		Az (°)	TVD (US ft)	N.OIIS (US f		(US ft)	(°)		F.Dir (°)
EN RIVER (GR	TN1)	6157.24	4.78	19	9. 58	6155.00	-56.0	)3	-15.63	0		0
AHOGANY BEN	CH	7157.72	4.78	1	15.58	7152.00	-136.	33	-38.02	0		0
WER GREEN RI (TGR3)	VER	8492.36	4.78	i l	95.58	8482.00	-243.	46	-67.90	0		0
SATCH (W090 <sup>-</sup>	TU2)	10247.96	4.78	19	95.58	10232.00	-376.	47	-105.00	0		0



State of Utah Division of Oil, Gas and Mining Attn: Mr. Brad Hill 1594 West North Temple, Suite 1210 Salt Lake City, Utah 84114-5801

> RE: Application for Permit to Drill

Myrin Livestock 2-20B3

SHL/BHL: 2,334' FSL & 1,926' FWL; 1,855' FSL, 1,820' FWL NW/4SW/4 of Section 20, Township 2 South, Range 3 West

Duchesne County, Utah

Dear Mr. Hill:

In accordance with the rules and regulations of the State of Utah, EP Energy E&P Company, L.P. ("EP Energy") is submitting an Application for Permit to Drill ("APD") for the proposed Myrin Livestock 2-20B3 ("Well") to the Utah Division of Oil, Gas & Mining ("UDOGM"). Concurrently with the filing of the APD for the Well, this Application for Permit to Drill letter hereby serves as notice to UDOGM that EP Energy is actively working to finalize the Surface Use and Right-of-Way Agreement ("Surface Agreement") with the surface owner of the Well, approved whose contact information is as follows ("Surface Owner");

Myrin Livestock Co., LLC Attn: Mr. N. Alarik Myrin HC 65 Box 30 Altamont, UT 84001

Telephone: (435) 454-3494

EP Energy has been diligently negotiating in good-faith with the Surface Owner for several months and is nearing an agreement of the Surface Agreements for the proposed Well. Although EP Energy is confident the Surface Agreements will be executed soon, we are filing the APD without the executed Surface Agreements due to the demands of our drilling schedule. This will allow LIDOGM to the permitting process as EP Energy finalizes the Surface Agreements. allow UDOGM to tright the permitting process as EP Energy finalizes the Surface Agreements. The Affidavit of Surface Agreements ("Affidavit") will be forwarded directly to your office as soon as the Surface Agreements are executed.

UDOM's effort to begin processing the APD without the executed Surface Agreements is greatly appreciated. EP Energy fully understands the APD will not be approved until we submit the Affidavit or otherwise comply with the Surface Owner Protection Act Provision R649-3-38.

If you have any further questions, please feel free to contact me at your convenience using the phone number and/or email address below.

Very truly yours.

Jacquelyn Lynch

EP Energy E&P Company, L.P.

Landman

1001 Louisiana Street, Suite 2525D

Houston, Texas 77002 Office: (713) 997-5747

Jacquelyn.Lynch@EPEnergy.com

#### EP Energy E&P Company, L.P.

#### **Related Surface Information**

#### 1. Current Surface Use:

Livestock Grazing and Oil and Gas Production.

#### 2. <u>Proposed Surface Disturbance:</u>

- The road will be crown and ditch. Water wings will be constructed on the access road as needed.
- The topsoil will be windrowed and re-spread in the borrow area.
- New road to be constructed will be approximately .68 miles in length and 66 feet wide.
- All equipment and vehicles will be confined to the access road, pad and area specified in the APD.

#### 3. Location Of Existing Wells:

Existing oil, gas wells within one (1) mile radius of proposed well are provided in EXHIBIT C.

#### 4. <u>Location And Type Of Drilling Water Supply:</u>

• Drilling water: Duchesne City Water

#### 5. Existing/Proposed Facilities For Productive Well:

- There are no existing facilities that will be utilized for this well.
- A pipeline corridor .68 miles will parallel the proposed access road. The corridor will contain one 4 inch gas line
  and one 2 inch gas line and one 2 inch Salt Water disposal line. Rehabilitation of unneeded, previously disturbed
  areas will consist of backfilling and contouring the reserve pit area; backsloping and contouring all cut and fill
  slopes. These areas will be reseeded. Refer to plans for reclamation of surface for details.
- Upgrade and maintain access roads and drainage control structures (e.g., culverts, drainage dips, ditching, etc.) as necessary to prevent soil erosion and accommodate safe, year-round traffic.

#### 6. Construction Materials:

 Native soil from road and location will be used for construction materials along with gravel and/or scoria road base material. In the event that conditions should necessitate graveling of all or part of the access road and location, surfacing materials will be purchased from commercial suppliers in the marketing area.

#### 7. Methods For Handling Waste Disposal:

- The reserve pit will be designed to prevent the collection of surface runoff and will be constructed with a minimum of ½ the total depth below the original ground surface on the lowest point with the pit. The pit will be lined with a 20-mil polyethylene to prevent leakage of fluids. The liner will be rolled into place and secured at the ends, i.e. buried on top of the pit berms. Prior to use, the reserve pit will be fenced on three sides; the fourth side will be fenced at the time the rig is removed. Drilling fluids, cuttings and produced water will be contained in the reserve pit (trash will be place in the trash cage). Fluids in the reserve pit will be allowed to evaporate prior to pit burial.
- Garbage and other trash will be contained in the portable trash cage and hauled off the location to an authorized disposal site. Any trash on the pad will be cleaned up prior to the rig moving off location and hauled to an authorized disposal site.
- Sewage will be handled in Portable Toilets.
- Produced water will be placed in the reserve pit for a period not to exceed ninety days after initial production. Any
  hydrocarbons produced during completion work will be contained in test tanks and removed from the location at a
  later date.
- Water from the reserve pit may be used for drilling of additional wells. The water will be trucked along access roads as approved in pertinent APD's

#### 8. Ancillary Facilities:

There will be no ancillary facilities associated with this project.

Page 2 Application for Permit to Drill – State DOGM Myrin Livestock 2-20B3 Duchesne County, Utah

#### 9. **Surface Reclamation Plans:**

Backfilling of the pits will be done when dry. In the event of a dry hole, the location will be re-contoured, the topsoil will be distributed evenly over the entire location, and the seedbed prepared.

- Seed will be planted after September 15<sup>th</sup>, and prior to ground frost, or seed will be planted after the frost has left and before May 15<sup>th</sup>. Slopes to steep for machinery will be hand broadcast and raked with twice the specified amount of seed.
  - 1. The construction program and design are on the attached cut, fill and cross sectional diagrams.
  - 2. Prior to construction, all topsoil will be removed from the entire site and stockpiled. Topsoil for this site is the first 6 inches of soil materials.
  - 3. After the location has been reshaped and after redistributing the topsoil, the operator will rip and scarify the drilling platform and access road on the contour, to a depth of at least 12 inches.
- Rehabilitation will begin upon the completion of the drilling. Complete rehabilitation will depend on weather conditions and the amount of time required to dry the reserve pit.
  - 1. All rehabilitation work including seeding will be completed as soon as weather a d the reserve pit napprovi conditions are appropriate.
  - 2. Landowner will be contacted for rehabilitation requirements.

#### 10. **Surface Ownership:**

Myrin Livestock Co., LLC Attn: Mr. N. Alarik Myrin HC 65 Box 30 Altamont, Utah 84001 435-454-3494

#### Other Information:

- The surface soil consists of clay and
- Flora vegetation consists of the following: Sagebrush, Juniper and prairie grasses.
- Fauna antelope, deet, coyotes, raptors, small mammals, and domestic grazing animals.
- Current surface use livestock grazing and mineral exploration and production.

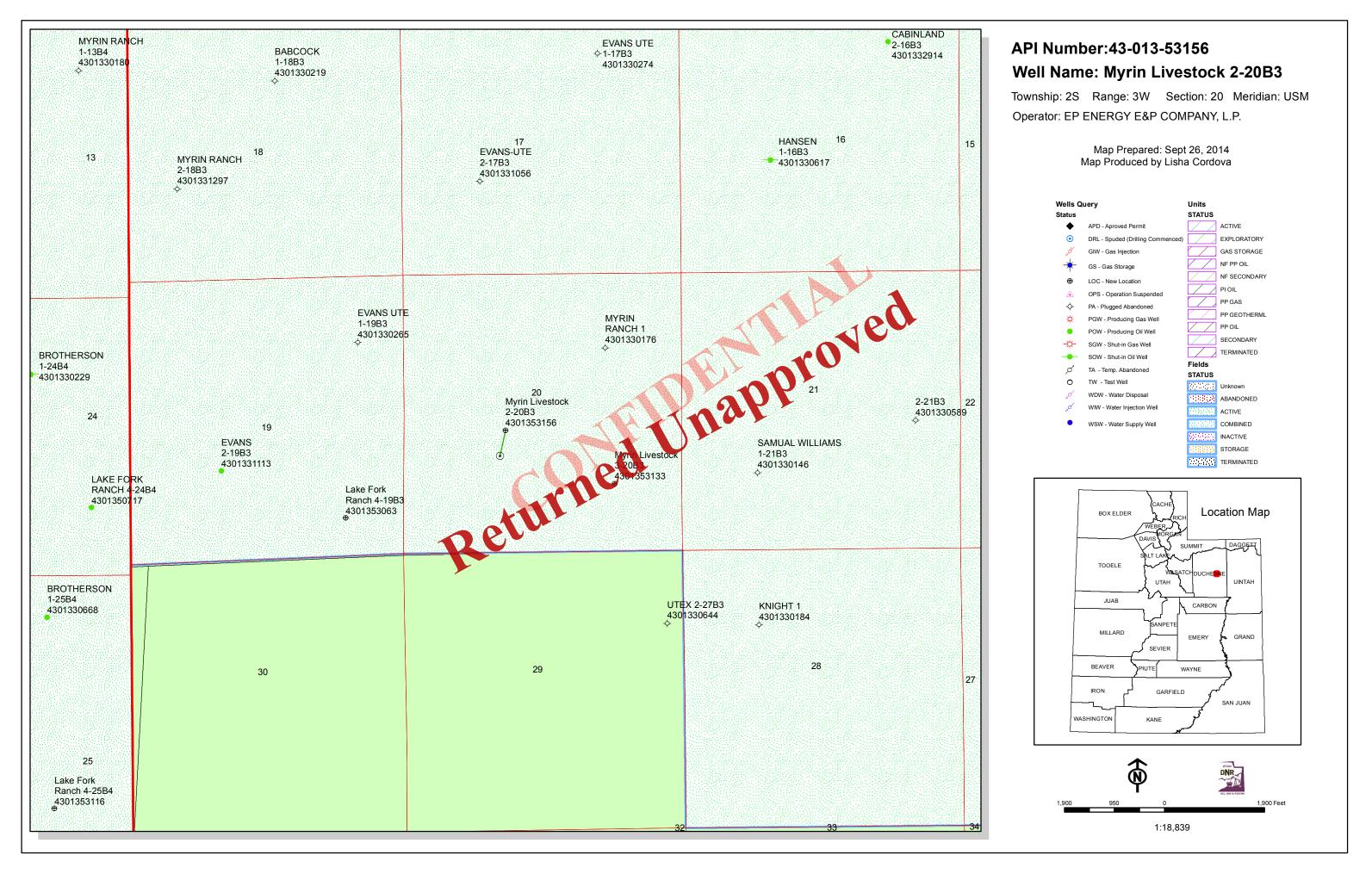
#### **Operator and Contact Persons:**

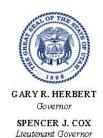
Construction and Reclamation: EP energy E&P Company, L.P. **Wayne Garner PO Box 410** Altamont, Utah 84001 435-454-3394 - Office 435-823-1490 - Cell

**Regarding This APD** EP Energy E&P Company, L.P. Maria S. Gomez 1001 Louisiana, Rm 2730D Houston, Texas 77002 713-997-5038 - Office

#### Drilling

EP Energy E&P Company, L.P. **Brad MacAfee – Drilling Engineer** 1001 Louisiana, Rm 2660D Houston, Texas 77002 713-997-6383 - office 281-813-0902 - Cell





#### State of Utah

#### DEPARTMENT OF NATURAL RESOURCES

MICHAEL R. STYLER
Executive Director

Division of Oil, Gas and Mining

JOHN R. BAZA
Division Director

September 23, 2016

EP ENERGY E&P COMPANY, L.P. 1001 Louisiana Houston, TX 77002

Re: Application for Permit to Drill - DUCHESNE County, Utah

Ladies and Gentlemen:

The Application for Permit to Drill (APD) for the Myrin Livestock 2-20B3 well, API 43013531560000 that was submitted September 22, 2014 is being returned unapproved. If you plan on drilling this well in the future, you must first submit a new application.

Should you have any questions regarding this matter, please call me at (801) 538-5312.

Sincerely,

Diana Mason Environmental Scientist

Enclosure

cc: Bureau of Land Management, Vernal, Utah

